NORTHEAST DEALER ISSUE
Pages 9-16

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...sects Damage ...ate Summer Crops, ...vade New Areas

Grasshoppers, Corn Borers Continue as Leading Problems

WASHINGTON — August crops re suffering damage from insects ross the country, and several im- rtant pests have showed up in new eas, according to the U.S. Depart- nt of Agriculture's latest coopera- e economic insect report.

Grasshoppers and European corn rers continue as leading problems several states, cotton insects are l on the increase and vegetable ects are damaging crops in vari- s sections of the country.

Several insects have extended eir range recently. For the first me, the sweet-clover aphid has en found in Mississippi, Virginia d Kentucky; the spotted alfalfa hid in North Carolina, South arolina, Kentucky and Virginia; e Rhodes-grass scale in Arizona, d a barberry leafworm in Dela- are. The tobacco budworm owed up in Hawaii and a lily hid in California, also for the rst time.

Grasshoppers continued as a threat legumes and fall-planted small ins in Wisconsin, Utah, Missouri some other states, and a heavy ulation of this insect is present northwest Idaho.

The European corn borer, which

(Continued on page 8)

Over 500 Expected at NAC Meeting

SPRING LAKE, N.J.—More than 500 leaders in fields of agricultural chemicals, government, colleges and others are expected here Sept. 5-7 for the annual meeting of the National Agricultural Chemicals Assn.

Highlighting the formal program will be three panels—one on who and what influences the grower to buy and use agricultural chemicals, one on the new highway expansion program and another on the Miller Amendment.

In addition, leading government and industry figures, including W. W. Allen, Dow Chemical Co., NAC president, are scheduled to give talks. The meeting also will include election of 1956-57 officers and the election of three members to the board of directors.

Factors in Efficient Use of Nitrogen Summarized by Agronomists at Great Plains Agricultural Ammonia Meeting

By JAMES W. MILLER
Croplife Editorial Staff

LINCOLN, NEB.—Location, type of soil, rate of application, method and time of application are important factors in the efficient use of nitrogen, it was brought out by speakers at the Great Plains Agricultural Ammonia Conference here Aug. 28-29. Sponsored jointly by the dealers of Nebraska and the Agricultural Ammonia Institute, the meeting attracted 175 persons from at least 15 states.

The session the first day featured speakers from the University of Nebraska on subjects affecting nitrogen use in local areas, while the final session Aug. 29 was made up of discussions by guest speakers from other states.

Bringing the greetings of the AAI to the meeting was Gen. R. H. Wooten, Mid-South Chemical Co., Memphis, AAI president. He stressed that since the AAI was formed five years ago, over a million tons of ammonia fertilizer have been stored, transported and injected into the soil with almost a 100% safety record.

Gen. Wooten cited this example as the result of one of the major purposes of the AAI. These aims, he said, are:

1. To stimulate and encourage agriculture.
2. To accumulate and disseminate information on the response of crops to liquid fertilizer and on equipment and methods of handling and applying it.
3. To advance knowledge and learning in the sciences and to stimulate invention and research as applied to the liquid fertilizer industry.
4. To encourage advancement of the highest degree of safety, efficiency and standardization in the manufacture of equipment required and used in the industry.

A thorough summary of Ne-

(Continued on page 21)

Drouth Gives New England Costly Wallop

BOSTON — The continuing drouth in Massachusetts is now seen as a million dollar crop loss. The sweet corn has been ruined; apple growers are watering their orchards; and the tobacco crop is beginning to feel effects of the drouth.

The latest report on the drouth situation was made at the State House Aug. 24 by Walter E. Piper, state marketing specialist. "The tobacco crop, a real money crop, is being hard hit," he said. "The leaves are much smaller and the leaf size is diminishing everywhere."

He said that not more than 20% of the crop land has been helped by recent showers, and it will take a "good solid soaker to pull everyone through."

The state's fruit and truck farmers harvest an annual crop worth between $40 and $50 millions. "This dry spell could easily mean a loss of $1,000,000," Mr. Piper said.

(Continued on page 5)

Scottish Company Completing New Granular Plant

LEITH, SCOTLAND—Scottish Agricultural Industries Ltd. is building a new concentrated granular fertilizer plant here. The plant includes three main process units — sulfuric acid production, phosphoric acid production and a formulation and granulation plant designed by Dorr-Oliver Inc., Stamford, Conn.

When completed, the entire project, which also includes reconstruction of a nearby existing S.A.I. fertilizer plant, will cost approximately $8.5 million.

The plant will produce a variety of concentrated granular fertilizers using the Dorrco Granular Fertilizer Process.

...esults of 1956 Experiments ...escribed at Conference of ...hio Pesticide Institute

WOOSTER, OHIO — A multi-mil- n dollar laboratory to study plant eases is needed in the U.S., Dr. W. Krauss, associate director of the io Experiment Station, told mem- rs of the Ohio Pesticide Institute their summer conference here g. 14-15.

Dr. Krauss said it would require 5 million to construct adequate fa- ities for doing the job. One func- on of such a laboratory would be simulate weather conditions on an curately controlled basis.

"The time is ripe to keep alive ur enthusiasm for greater action n the fields of pest and disease control," he declared. The associate director spoke at the annual banquet of the OPI on Aug. 14.

M. G. Farleman of Standaird Oil, resident of OPI, had high praise for e quality and scope of the 1956 nference, which was held at the hio Agricultural Experiment Sta- on.

"This has been one of the most complete and comprehensive OPI meetings we have ever had," he observed. "It is gratifying that agricultural agencies such as the Ohio Agricultural Experiment Station are broadening their research to include so wide a field."

One of the added features of this year's summer OPI program was a report on research with chemicals used in the field of woodland management and wood products. O. D. Diller, chairman of the station's forestry department, took visitors on a mile-long tour of the Secrest Arboretum and described the projects under way there.

Of unusual interest was a trial aimed at checking the damage caused by American chestnut blight Mr. Diller had treated several trees by applying a film latex solution to the main trunks so that blight spores could not enter cracks

(Continued on page 17)

Inside You'll Find

Over the Counter 9
What's New 10
World Report 18
Editorials 22
Meeting Memos 23
Index of Advertisers 23

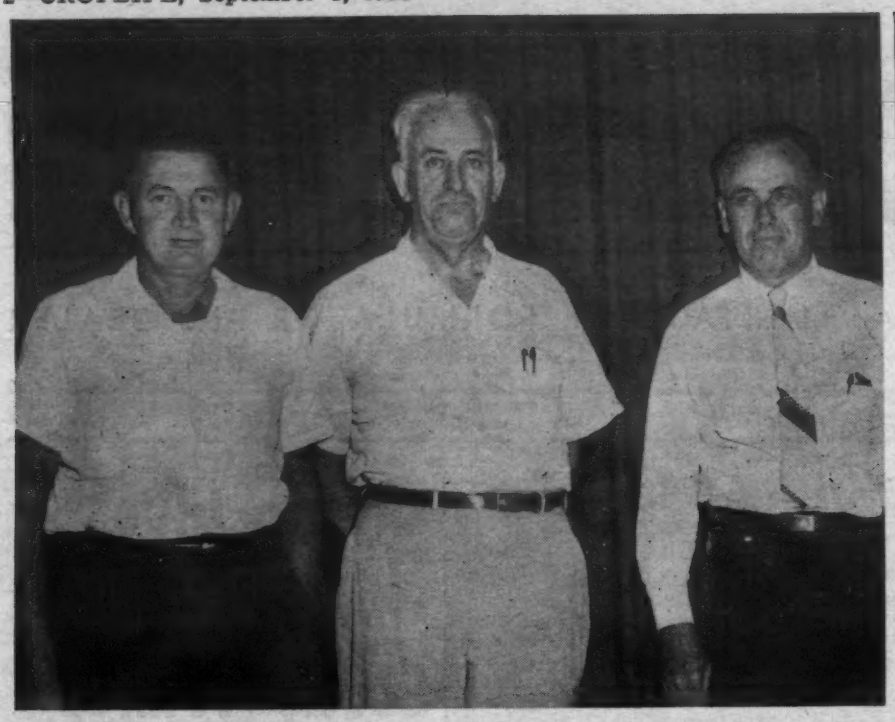
Chemagro Corp. to Build $2 Million Insecticide Plant in Kansas City

KANSAS CITY—Chemagro Corp., New York, will build a new insecticide manufacturing plant in Kansas City at a cost of more than $2 million, it was announced here Aug. 29 by George W. Hill, Jr., president of the firm. The corporation has purchased 25 acres of land from the Kansas City Southern Railway and has taken an option on an additional 25 acres for future expansion, Mr. Hill said.

Chemagro is jointly owned by the Pittsburgh Coke and Chemical Co. and Farbenfabriken Bayer, of Leverhusen, West Germany.

Ground breaking for the new factory is planned next month with a pilot plant to be in operation sometime next year. A laboratory, formulation plant, warehouse and administration building will be built, in addition to a production unit to manufacture guthion, an organic phosphate insecticide.

Dr. Robert C. Scott, director of manufacture for Chemagro, will head the Kansas City operations.



SAFETY SUPERVISORS CONFER—Fertilizer industry supervisors held a two-day training course at Wilmington, N.C. recently with 61 present. Prominent among the attendants were the three men shown here: W. C. Creel, safety director of the North Carolina Department of Labor; Vernon S. Gornto, safety director, Smith-Douglass Co., Norfolk, Va.; and E. O. Burroughs, Jr., F. S. Royster Guano Co., Norfolk, Va., vice chairman of the fertilizer section, National Safety Council. Safety leaders from North Carolina fertilizer plants made up the bulk of the number present, but four other east coast states were also represented.

Fertilizer Industry Safety Training Pilot School Called "Very Successful"

WILMINGTON, N.C. — Sixty-one superintendents, supervisors and safetey leaders from North Carolina fertilizer plants and four other East Coast states attended the National Safety Council's supervisory training course held in Wilmington, Aug. 16-17.

E. O. Burroughs, Jr., of Norfolk, Va., vice chairman of the fertilizer section of the National Safety Council, presided at meeting. He and other executive committee members present described the pilot course as "very successful," and reported that plans are being considered for similar meetings in other sections of the country.

Mr. Burroughs said the course was held to instruct fertilizer industry supervisors in the latest techniques of accident prevention and to train them in setting up their own plant safety training programs.

Leaders and instructors in the National Safety Council course included Mr. Burroughs; E. T. Chanlett of Chapel Hill, N.C., sanitary engineering professor at the University of North Carolina; Dr. Samuel Graham, Williamston, N.C., Martin County health officer; H. S. Baucom, Raleigh, N.C., safety director for the North Carolina Industrial Commission; W. C. Creel, Cary, N.C., safety director for the North Carolina Department of Labor; Harry Donaldson, Raleigh, N.C., industrial hygienist, North Carolina State Board of Health, and W. M. Shaw, Wilmington, N.C., industrial safety inspector for the North Carolina Department of Labor.

The course featured illustrated talks and lectures on "The Supervisor as a Teacher and Leader," "The Accident Problem," "Plant Inspection," "Accident Investigation," "The Safety Committee," "The Use of Movies and Visual Aids," "Occupational Health in Fertilizer Plants" and "Human Feelings in Teaching Safety."

Included in the course were a half-dozen brief safety films and other visual aid materials dealing with safety training and other phases of accident prevention in the fertilizer industry. Also included was a panel discussion on "Highlights of Fertilizer Plant Accident Causes" and a group discussion of major fertilizer industrial hazards, including "Housekeeping," "Maintenance and Shop Safety," "Hand Tools," "Machine Guarding," "Handling Materials and Overhangs" and "Fire Prevention and Explosives."

E. T. Chanlett talked on "Putting Training Methods to Work."

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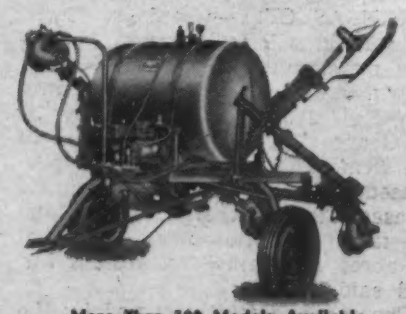

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THE BROYHILL COMPANY, DAKOTA CITY, NEBRASKA

New York Insecticide, Fungicide Conference Scheduled Nov. 13-15

ITHACA, N.Y.—The 18th annual New York State Insecticide and Fungicide Conference and the 9th annual Pesticide Application Equipment Conference will be held Nov. 13-15 at Bibbins Hall, Cornell University, Ithaca, N.Y.

The conferences are a cooperative presentation of the departments of agricultural engineering, entomology and plant pathology at Ithaca and the departments of entomology and plant pathology at Geneva.

The first day, Nov. 13, will be devoted to application equipment problems and developments. On the second and third days, Nov. 14 and 15, the highlights on research and the recommendations for insecticides and fungicides for New York State will be reviewed. A preliminary report on the residue laboratories established this year at Ithaca and Geneva and a trip through the laboratory at Ithaca are planned.

Announcement of the conferences was made by G. C. Kent, for the department of plant pathology at Ithaca and Geneva; O. C. French, department of agricultural engineering at Ithaca, and C. E. Palm, for the department of entomology at Ithaca and Geneva.

Escambia Announces New Name, Permanent Office Location

NEW YORK—The new corporate name and the location of permanent offices for Escambia Bay Chemical Corp. have been announced by R. U. Haslanger, president.

The corporation discontinued the use of the word "Bay" in its official title to become Escambia Chemical Corp.

The executive offices of the corporation now occupy the 20th floor at 261 Madison Ave., New York. Offices of the president; the resin sales manager, W. W. Peacock, Jr., and the commercial development manager, A. N. Wohlend, are all located at this address.

The corporation's research and development is located at Cambridge and Newton, Mass., under the direction of Dr. N. C. Robertson, vice president. Production facilities are located at Pensacola, Fla., under the direction of D. J. Stark, vice president.

Escambia Chemical began commercial production of ammonia, nitric acid, ammonium nitrate and nitrogen fertilizer solutions at its Pensacola plant last year. The sales agency for the firm's nitrogen fertilizer products is Ashcraft-Wilkinson Co., trust company of Georgia Bldg., Atlanta.

By the end of this year, a 30 million pound polyvinyl chloride resins plant will be in production at the Pensacola site.

William T. Sample Joins U.S. Testing Co.

HOBOKEN, N.J.—The U.S. Testing Co., Hoboken, has announced the appointment of William T. Sample as an agronomist in its Memphis branch. Mr. Sample will participate in the company's soils analysis and fiber testing program, conducting and supervising physical and chemical tests to evaluate soil fertility and the effects of soil management on cotton and other agricultural crops.

Before joining the testing company, Mr. Sample was an agronomist for the Mid-South Chemical Corp., Memphis. Prior to that, he was an associated county agent with the Agricultural Extension Service of the University of Missouri. Mr. Sample has a bachelor of science degree from the University of Missouri. He served for three years in the army.

W. Coleman Edgar

W. Coleman Edgar Named to New Hercules Sales Post

WILMINGTON, DEL. — Hercu Powder Co. has announced that Coleman Edgar has been appoint sales manager of its naval stores d partment's Agricultural Chemic Division. Mr. Edgar succeeds P. Reno, who was recently named ma ager of the division. (See page 2 Aug. 27 Croplife.)

Mr. Edgar, who was involved wi export sales for the Agricultu Chemicals Division and served liaison with government resear agencies, will be succeeded by Hen F. Pierce, who has been senior te nical sales representative for na stores at the company's office in L Angeles.

A native of Morristown, N.J., M Edgar is a graduate of St. Andrew School, Middletown, Del., and Prin ton University. He joined Hercul in 1943 as a chemist at the resear center, and became a technical sal representative in 1946. He has be with the Naval Stores Departme since 1949.

Mr. Pierce, a native of Spri Lake, N.J., is a graduate of Asbu Park High School, N.J.; State C lege, Pa., and Rutgers University. joined Hercules in 1951 as a tech cal sales representative with t Naval Stores Department in W mington. He was transferred to S Francisco in 1952.

S. E. Cook, Jr., has been tra ferred from Brownsville, Texas, Los Angeles to replace Mr. Pier as agricultural chemicals represent tive in the West Coast territory.

Naco Fertilizer Co. Being Liquidated

SAN FRANCISCO — The Na Fertilizer Co., producer of ma kinds of fertilizers under the bra name of "Naco" is in the process completing liquidation of its sto and equipment, and is no longer ma ufacturing the chemicals, accordi to a company announcement.

Four plants formerly located Madera, Santa Clara and Los A geles in California have all been so and stock in the corporation has a been sold. Offices during the co pletion of liquidation are located San Francisco.

Co-op Starts Building Fertilizer Mixing Plant

TRACY, MINN.—Midland Coop atives, Inc., have announced th construction has begun here on new dry fertilizer mixing plant. T building, when completed, will 60 x 100 ft. According to Lau Peterson, the co-op's manager feed, seed and fertilizer, the pl will have a six-ton mixer and stora space for 600 tons of plant food.

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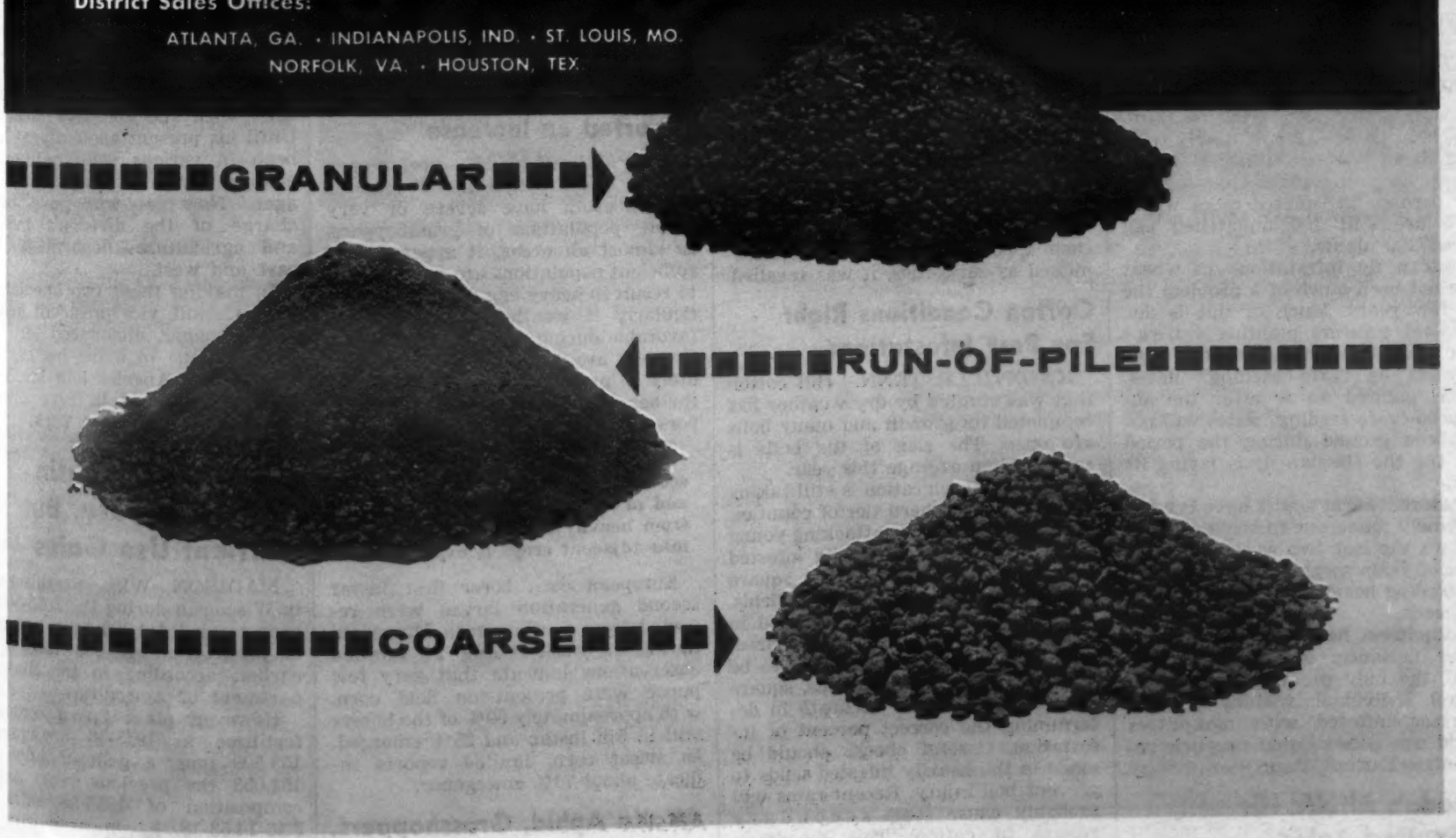

INSECT, PLANT DISEASE NOTES

Arizona Weather Favors Boll Weevil

PHOENIX, ARIZ.—Hot, humid weather and scattered showers have increased the likelihood of boll rot in rank fields, but otherwise Arizona's cotton crop remains in excellent condition. In most sections, bolls are opening rapidly, and picking is under way on lighter, sandy soils. (Aug. 24)

Lygus, stink bugs, and bollworms continue to be the principal insect pests, although cabbage loopers are becoming a serious problem in some counties. Stink bugs are injuring bolls, while Lygus hit flowers, squares, and small bolls alike. Reports by counties are as follows:

Leaf perforators are especially active in the Maricopa area, and control measures have proven unsatisfactory in many cases. This may be the result of heavy infestations, poor timing, and incorrect material, or possibly a combination of all three. Perforators are troublesome in some fields around Stanfield, Casa Grande, and Eloy also, Mr. Robertson, assistant county agent in Pinal county, states.

Bollworms and bollworm eggs have shown a decided increase in the Coolidge-Magma areas, particularly in fields that have been dusted for other insects. Bollworms also were found around Maricopa and Stanfield as were stink bugs.

Lygus populations are high in the Eden area, and dusting is now in progress. A few bollworms are appearing here also. In the Glenbar district, bollworm and Lygus populations are high.

In Pima County, bollworm populations remain fairly low, according to USDA fieldmen. Lygus populations are decreasing slightly. The principal source of injury to cotton apparently comes from disease. Verticillium wilt, root rot, and desert rust are prevalent in both Pima and Santa Cruz counties.—J. N. Roney.

Corn Borers Active in Iowa Fields

AMES, IOWA—The second brood moth flight and egg laying of European born borer are now nearly complete in all parts of Iowa. It is too late to do any control spraying except perhaps in isolated cases where there are still 100 unhatched egg masses/100 plants.

Hessian fly infestations in wheat have not been much of a problem the last few years. Much of this is due to wheat growers planting wheat after the dates announced for their localities as "safe seeding" dates. Wheat planted on or after the announced "safe seeding" dates will not be above ground during the period that the the Hessian fly is laying its eggs.

Corn rootworm adults have become extremely numerous in some sections of Iowa the last two weeks. In some fields of grain sorghum and milo they are feeding heavily on the kernels in the heads.

Mosquitoes have become an extreme nuisance. Area spraying is about the only practical method of control. Individuals wishing to work in areas infested with mosquitoes should use either liquid or stick repellents.—Earle S. Raun.

Nevada's Alfalfa Hit By Spotted Aphid

RENO, NEV.—More than 15% of Nevada's alfalfa producing areas are infested by the spotted alfalfa aphid, according to a circular released by the agricultural extension service. R. W. Lauderdale, extension entomologist, and L. T. Wallace, extension agricultural economist, authors of the publication, say that the insect has killed some alfalfa stands in the state and lowered the production per acre in others to the point where it won't pay to harvest the crop. Many ranchers in Southern Nevada have lost 75% of their normal production.

According to Mr. Lauderdale, it's impossible to say when the spotted alfalfa aphid may infest the remaining alfalfa fields of Nevada. Some can fly and may be carried along by the prevailing winds.

Corn Insects Show Up In Maryland Report

COLLEGE PARK, MD.—European corn borer is moderate to heavy in sweet corn in Frederick and Carroll Counties. One report shows a drop in egg masses from 14 per hundred plants to 6, and a drop in plants infested from 11% to 8%. Canners in this area are treating their fields. Corn earworm is likely to increase. The crop is the best in years.

Broccoli and brussels sprouts near College Park are infested with aphids. It is time for cabbage loopers too.

Bagworms have been very prevalent this year. Delaware entomologists and county agents have started a campaign for "less bagworms in 1957." Fall webworm is feeding on elm and shrubs in Montgomery County. This is a gregarious insect that defoliates a fair-sized branch.

Reports of cadelle in grain bins have come from Charles and Washington Counties.

A Salisbury veterinarian reports cases of equine encephalitis on the lower Eastern Shore. This virus disease is carried by both salt-marsh and fresh water mosquitoes.—Wallace C. Harding, Jr. and Theo. L. Bissell.

Fewer Jap Beetles in Massachusetts Now

BOSTON—Japanese beetles are becoming less frequent in Massachusetts according to entomologists for the first time since appearance here 13 years ago.

They traced Popillia Japonica from Irvington, N.J. in 1916 aboard a load of fruit. According to the Waltham Field Station, DDT, post traps and chemicals in the soil have thinned the ranks of the pest.

When Japanese beetles first made their appearance here, they were dismissed as curiosities, it was recalled.

Cotton Conditions Right For Pest Infestations

KNOXVILLE, TENN.—Hill cotton that was stunted by dry weather has completed its growth and many bolls are open. The size of the bolls is smaller than average this year.

Boll weevil migration is still taking place in the southern tier of counties, and adult weevils are attacking young bolls throughout the heavily infested area. Lack of squares made square counts impossible in most fields. Only a few squares can be found in the heavily infested fields and practically all of these were found to be punctured. So because of this, square counts would not be accurate in determining the correct percent of infestation. Careful checks should be made in the heavily infested fields to prevent boll injury. Recent rains will probably cause some secondary growth in cotton. This secondary growth should provide enough squares for an increase in weevil populations late this season.

Boll worms are continuing to cause some damage in weevil infested areas. Only slight increase found over that of last week. (Aug. 27)

Spider mite is still increasing following the use of insecticides. In some cases appearing in large spots in fields causing complete defoliation. Aphids show some increases over last week. In a few cases could become heavy enough for their honeydew to hurt open cotton.—R. P. Mullett.

Find Stubby Root Nematode in California

BERKELEY, CAL.—Another nematode has been discovered attacking alfalfa in southern California. Plants raised in soil infested with the microscopic worm were severely stunted, according to a report by a University of California scientist.

The pest has been identified as the stubby root nematode and could be seriously destructive on California's important alfalfa crop. It also attacks beets, sweet corn, and other vegetable and field crops.

Preliminary greenhouse tests indicate that fumigation of infested soil with ethylene dibromide will control the nematode and result in increased growth of alfalfa.

The project is being conducted by Dr. Ivan J. Thomason and Dr. S. A. Sher, assistant nematologists in the University's Citrus Experiment Station, at Riverside.

South Carolina Finds Numerous Bugs Active

CLEMSON, S.C.—In the upper Piedmont, boll weevil damage to cotton squares is continuing. Boll rots are believed not to be an important factor thus far with the crop, but scald damage on non-irrigated cotton in Greenwood County is reported as serious.

Armyworms have been reported severe on all types of forage crops, particularly Millet and Sudan. From 12 to 15 acres were infested when the report was made on Aug. 22.

Spotted alfalfa aphids were found near Westminster earlier in August, and alfalfa leaf spot was causing serious shedding in one of the state's largest plantings near the mountains.

Grasshopper Numbers Reported on Increase

ST. PAUL, MINN.—Preliminary reports indicate that many counties of Minnesota have severe or very severe populations of grasshoppers. In almost all areas, it appears that sufficient populations are now present to result in heavy egg deposition, particularly if weather conditions are favorable during the next few weeks. Growers are urged to spray immediately to prevent egg laying and also further damage by adult grasshoppers.

In the northern half of the state, second crop alfalfa is being cut, and movement of grasshoppers from heavily infested alfalfa fields into adjacent crops is expected.

European corn borer first instar second generation larvae were reported from southwestern Minnesota during the week of Aug. 24. Limited observations indicate that very few pupae were present on field corn, with approximately 60% of the borers still in 5th instar and 25% emerged. In sweet corn, limited reports indicate about 70% emergence.

Alfalfa Aphid, Grasshoppers, Armyworm in Kansas

MANHATTAN, KANSAS — Noneconomic to moderate infestations of spotted alfalfa aphids were found in nearly all alfalfa fields surveyed in the following counties: Cloud, Republic, Jewell, Phillips, Smith, Norton, and Decatur (Aug. 25). Counts ranged from less than 10 to over 300 per sweep of standard net. No aphids were found on newly emerged alfa seedlings in Decatur County, nor west. Most of the aphid-infested falfa fields had lady beetle popu tions that ranged from 2 to 15 sweep. Both adults and larvae w present.

Light to threatening populatio of grasshoppers were found alo the margins of alfalfa and row cr fields in the northern tier of no central Kansas counties. Most of infestations were localized arou favored habitat of the 'hoppe Counts ranged from less than 1 around 10 'hoppers out in the cr fields to counts of 18 per square y in a few roadside ditches and fen rows. A new generation of les migratory nymphs was found in m areas. The adult survey has now b completed and results will be pu lished in a later report.

Webworm larvae (identificati not made) were found in several are of northwest Kansas. These larv were numerous crossing the road a in the margins of some corn a sorghum fields where counts rang from 8 to 15 per square foot. Ro side fireweed was heavily infest and webbed. Very few larvae we found on corn or sorghum plants the heavily infested areas.

Examination of some irrigat corn fields in Decatur and Nort counties showed a fall armywor infestation of 40%. The larvae we nearly mature and were feeding the shank area on the infested ear —Dave Matthew.

Pacific Coast Borax Names Production, Sales Officials

NEW YORK—Pacific Coast Bora Company Division of U.S. Borax Chemical Corp. has announced t appointment of Lloyd L. Fusby western manager and Roger Hinchman as general sales manage

Mr. Fusby is a chemical enginee having graduated from the Unive sity of California in 1935. He has pr gressively been superintendent of t Boron plant, production manager, a he will now have over-all respons bility for production at both W mington and Boron, as well as r lated activities of the division.

Mr. Hinchman, also a Universi of California graduate in 1935, h been with the company since 194 Until his present appointment he h been in various sales positions, i cluding eastern industrial sales ma ager. Now he will have over-a charge of the division's industri and agricultural departments, bo east and west.

In making these two appointmen J. F. Corkill, vice president and ge eral manager, announced Mr. Fus will continue to make his headqua ters in Los Angeles and Mr. Hinc man will remain in the division headquarters in New York.

1955-56 Wisconsin Sales Decrease, But Nutrient Use Gains

MADISON, WIS.—Fertilizer sal in Wisconsin during the 1955-56 fisc year totaled 411,793 tons, a decrea of 3.7% from 427,953 tons a ye earlier, according to the State D partment of Agriculture.

However, plant food content fertilizer in 1955-56 amounted 153,509 tons, a gain of 1.6% fro 151,053 the previous year. Avera composition of 1955-56 sales w 5.16-14.53-18.04, compared with 4.4 14.11-17.38 in 1954-55.

Included in 1955-56 sales were 30 763 tons of complete mixed goo 71,639 tons of phosphate and pota mixtures, 3,198 tons of superpho phates and 28,193 tons of other m terials.

Bulk distribution during the fir half of 1956 totaled 11,841 tons dry mixed fertilizers and 1,262 to of dry materials.

C Halts Proposed emurrage Increase

ASHINGTON — The Interstate mmerce Commission Aug. 29 ked a sharp increase in demur- charges on railroad freight cars. e increase was proposed by the oads and was to have gone into t Sept. 1. ICC directed the roads maintain present demurrage ge at least until March 31, 1957 llow the commission time to in- igate the proposal.

emurrage is collected from ship- for detaining freight cars be- d the 2-day traditional free time ed for loading and unloading on stry sidings.

resent demurrage charges, estab- ed in 1949, are $3 for each of the four days after free time and or each day thereafter, not count- Saturdays, Sundays and holidays. he railroads proposed to raise the s to $4 for each of the first two s after free time, to $7 for each he following two days and to $10 each day thereafter. Saturdays, days and holidays would be in- ded under the proposed new sched-

CC said that it acted in blocking increase after receiving more n 470 protests against the higher es.

nghorn Construction eorganizes, Starts pansion Program

SULPHUR SPRINGS, TEXAS — e Longhorn Construction Co. here s been reorganized and an exten- e expansion program is under way, illiam S. Tyler, president, has an- unced.

Present officers are Mr. Tyler, o is in charge of sales and re- rch; Charles H. Tyler, vice presi- nt and field engineer in charge of nstruction, and Arnold Neumann, siness administrator.

Mr. Neumann recently resigned as neral manager of the Red Star rtilizer Co. to purchase an interest the Longhorn firm.

Longhorn manufactures and in- alls continuous granulation plants, ntinuous acidulating phosphate nts and other fertilizer industry uipment. Its activities cover all eas of the U.S. and it has some reign projects.

ohn C. Jacobsen in ew Monsanto Post

ST. LOUIS—John C. Jacobsen of . Louis has become a sales repre- ntative for Monsanto Chemical o. Inorganic Chemicals Division dis- ict sales office at Cincinnati, Ohio.

Mr. Jacobsen, who has been a sales rrespondent in the St. Louis dis- ict sales office, will assume his new ost Sept. 10. He will be succeeded St. Louis by William W. Haase of ebster Groves, Mo.

A native of Illinois, Mr. Jacobsen eceived a B.S. degree in chemical ngineering from Purdue University 1955. He joined Monsanto as a les trainee in November, 1955, and as been in the St. Louis district of- ce for several months. Mr. Haase, ho received a B.A. degree in busi- ess administration from Washington niversity in 1954, joined Monsanto st June as a sales trainee after two ears service as a first lieutenant in he army.

ombats Mosquitoes

CHARLESTON, S.C.—The federal overnment's communicable disease enter, Atlanta, dispatched a plane rom the center's technical develop- ent center at Savannah recently to ombat a mosquito invasion at harleston. The plane sprayed lar- acide over a 1,300-acre area along he Cooper River.

DROUTH

(Continued from page 1)

"Our fruits and vegetables need 1,000,000 gallons a week. We have not had anything like that for nearly eight weeks."

He estimated that 80% of the farm land was in need of water. He said he had found that many "dug" ponds, used for irrigation purposes, were running dry. Farmers with irrigation equipment, he said, are using it almost without exception.

Central New England has not had enough rain for farming since mid-July. Outside of Plymouth, Bristol and Barnstable counties, pastures are drying and a second hay crop has poor prospects, Mr. Piper reported.

Pastures and gardens in Essex County have been drying since a weekend rain early in July, according to Carlton Cartwright, Essex County agent. Local showers gave only temporary relief.

In Essex and Middlesex County, truck farmers have turned on 2,000 gallon a minute irrigation systems to save their crops. In the southern New Hampshire counties of Merrimack and Hillsboro, farmers report that the leaves of sweet corn have begun to curl and that the entire crop faces shrinkage and possible disaster because of lack of rain.

In Worcester County, the already hard hit fruit crops continue to be threatened by the drouth, William R. Goss, county agent, said: "Croplands now are in the grip of a drouth that is beyond the critical stage. Two or three inches of rain are needed at once."

The fruit crop this year was doubly threatened, crippling late spring frost having greatly diminished the yield. "Second and third hay crops are just about done for," Mr. Goss said.

Experts are calling the drouth "worst ever experienced here." They pointed out that "even the goldenrod is actually drying up. It is a pretty tough plant and that is an indication of how dry it is."

Vegetable farmers are faced with considerable loss. Specifically sweet corn, potatoes, squash and tomatoes have suffered. Several apple growers have been forced to haul water to their orchards. State agricultural heads reported "that is a terrific job and it happens very rarely."

The water shortage is already showing up in the small size of early apples, the yield has been cut down. The state suffered a severe drouth in late June and early July last year, but not of comparison with the present one.

CSC DIVIDEND

NEW YORK—A dividend of 25¢ a share has been declared on the outstanding common stock of Commercial Solvents Corp., payable Sept. 28, 1956, to stockholders of record at the close of business on Sept. 7, 1956. Previous payment was 25¢ a share on June 29, 1956.

New Home of Geigy Agricultural Chemicals

• Geigy Agricultural Chemicals' modern new headquarters now combine administrative offices, service facilities, and chemical research and development laboratories.

All of these facilities in one location constitute another step forward to serve you better and more efficiently.

GEIGY AGRICULTURAL CHEMICALS • *Division of Geigy Chemical Corporation* • Saw Mill River Road, Ardsley, New York
Mail address: P.O. Box 430, Yonkers, New York — Telephone: HAstings 5-8211

DIAZINON

The most effective residual fly control chemical available. One spraying kills flies from 4 to 6 weeks.

METHOXYCHLOR

General purpose insecticide. For control of insect pests of livestock, crops, and stored grain. Safe to use. Long residual action.

CHLOROBENZILATE

Safe, effective miticide. Controls mites on apples, pears, citrus, and ornamentals. Long residual action.

SEQUESTRENE*

Original iron chelates for correction of iron deficiency (chlorosis) in ornamentals, fruit trees, vegetables, and turf.

*"SEQUESTRENE" is the brand name for metal chelates sold by Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation

DDT

Controls a variety of insect pests of man and animals. Equally effective against many insects attacking ornamentals and agricultural crops.

Geigy ORIGINATORS OF DDT INSECTICIDES

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Fertilizer Industry Economics to Be CFA Program Theme

SAN MARINO, CAL.—Elmer Wheeler of the Sizzle Ranch, Dallas, Texas, one of America's leading authorities on sales management, will be featured at the 33rd annual convention of the California Fertilizer Assn. to be held at Hotel del Coronado, Coronado, on Nov. 11-13. About 600 will attend from all portions of the U.S. and from Canada.

Mr. Wheeler originated the phrase "don't sell the steak, sell the sizzle," and he will tell the plant food people assembled at Coronado about "Selling the Sizzle in the Fertilizing Business." He has originated many highly successful sales approaches for many different businesses, according to Frank Scoville, Chula Vista, convention chairman.

Four directors will be chosen to serve during the coming three years, and new officers elected to serve during 1957. Other business will be action on a proposed revision of the constitution and by-laws; on the 1957 budget, and reports on the program of the association's technical committee, that on soil improvement and on a new fertilizer use brochure for bankers and farmers.

To round out the theme for this year's convention — "Some Aspects of Fertilizer Industry Economics"— Mr. Scoville has obtained for the program Prof. Philip Neff, director, industrial and governmental economics research of the Planning Research Corp., Westwood, Cal. A panel discussion on the subject of the convention theme will wind up the business portion of the program. Dr. Daniel G. Aldrich, Jr., chairman of the department of soils and plant nutrition, University of California, Davis, will moderate the panel discussion.

Mr. Scoville reports that an outstanding program of entertainment and recreation has been developed for the ladies, who will be guests of the association at a cocktail hour and luncheon at the La Jolla Beach and Tennis Club, La Jolla. Golf tournaments for men and for women; two ladies' putting contests—one for golfers and the other for non-golfers; bowling; bridge and canasta will have their places on the program.

Social events to be sponsored by member concerns will include a cocktail hour and buffet dinner by Stauffer Chemical Co. and Western Phosphates, Inc., Nov. 11; a cocktail hour by Balfour, Guthrie & Co., Ltd., followed by a steak dinner, courtesy of Shell Chemical Corp., Nov. 12, and a cocktail hour sponsored by American Potash & Chemical Corp., preceding the banquet Nov. 13.

SMALL BUSINESS LOAN

WASHINGTON — Small Business Administration has approved a $15,000 loan to Agricultural Service Co., Centerville, Iowa, a grain, seed and fertilizer firm.

J. J. Simmons

Merck Creates Two New Positions in Agricultural Chemicals

RAHWAY, N.J.—Two new po in the chemical division have b created at Merck & Co., Inc., to cilitate the company's expanding search and sales program in the ag cultural chemical field, according a recent announcement from t firm.

J. J. Simmons, who will be one the key men in developing the p gram, has been promoted from ma ket specialist to plant products ma ager. Mr. Simmons was with t Heyden Chemical Co. as materi control supervisor before joini Merck in 1943 to become sales ser ice manager for the eastern sa region. He is a graduate of Lafa ette College.

In addition to Mr. Simmons' a pointment, Merck has appointed E. Driggers to the post of sales p motion and field service man in t Florida area. Mr. Driggers, a n tive of Florida, will work with de ers, distributors and growers. He a graduate of the College of Agric ture, University of Florida.

He will be principally concern with giving technical aid and advi on the application of Merck's an biotic plant disease control produ Agristrep. Before coming wi Merck, Mr. Driggers represented t California Spray Chemical Corp a the California Growers Assn. Florida.

Drouth Threatens To Kill Citrus Trees

MONTE ALTO, TEXAS — Ma thousands of citrus fruit trees a facing death in the Lower R Grande Valley because of drou says Sam Tayloe of the Citrus A visory Committee. These are mos older trees which have lost their ab ity to survive under abnormal drou conditions. Mr. Tayloe estima that between 25 and 50% of t year's citrus crop has already be killed by the drouth.

The recently formed Citrus Ad sory Committee is seeking to borr 95,000 acre feet of water from Me co, since that country shares t volume of water coming down t Rio Grande.

The older trees have already be weakened by freezes and dry weat er and are barely staying alive no Mr. Tayloe says many citrus owne are about ready to quit entirely. T severe freezes in 1949 and 1951 a now the driest year in a decade ha made citrus fruit growing a cos venture.

CROP OUTPUT OFF

COLUMBIA, S.C.—Aggregate cr production in South Carolina will below that of 1955, largely due lack of rainfall in some areas of t state, the Federal-State Crop R porting Service has reported.

At last . . . big packer performance at little packer price . . .

Here is a lightweight, portable, automatic performer that will handle any product that establishes an angle of repose. Typical examples: rice, sugar, corn, cracker meal, poultry feeds, granite grits, salt and dry chemicals.

Bemis Packer-Ette will reduce your costs through accuracy, speed and efficiency. It is just the packer for you in any operation that does not justify a heavy-duty, permanent installation.

Packer-Ette gives you so many benefits and features that it is impossible to do more than hit the high spots here. You'll want to get all the facts. Ask your Bemis Man . . . or write us for folder and details.

JUST LOOK . . .

SPEED—Up to eight 100-lb. bags per minute, depending on flow characteristics of your product.

ACCURACY—Plus or minus 2½ ounces or better on 100-lb. bags, depending on product characteristics. Self-aligning and self-cleaning knife edges of the scale assure consistent, accurate weights.

OPERATING EASE—The operator places an empty bag on the filling tube and starts the cycle by depressing the foot switch . . . that's all. The bag holder opens automatically when the filling cycle is complete. All controls are at eye level.

BEMIS VICON® FEEDER—A unique means of moving products from supply hopper to scale beam; a two-stage pulsating feeder tray first feeds rapidly, then at a rate which can be controlled for accuracy. When the exact weight is reached, the feeder cuts off and the filled bag is deposited automatically on the sewing machine conveyor.

CAPACITIES—From 25 lbs. to 150 lbs. Easily adjustable for varying bag sizes.

TAKES LIMITED SPACE—Width, 26"; depth, 42"; maximum over-all height, 97⅝"; minimum, 76".

LIGHT AND PORTABLE—Shipping weight, 600 lbs. Portable mounting for use in various locations.

NO INSTALLATION SERVICE—Just move it in and plug into a 110-volt, 60-cycle line. All electrical equipment enclosed in cast-iron explosion-proof boxes.

The New Bemis Packer-Ette!

Bemis

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Sales Offices in Principal Cities

LOOK TO NATIONAL POTASH FOR QUALITY AND SERVICE

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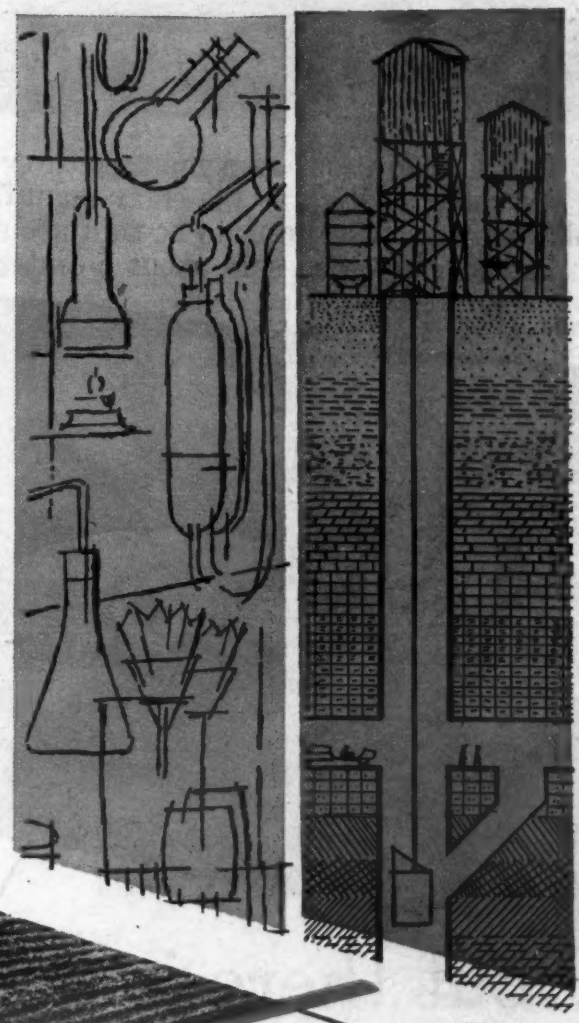
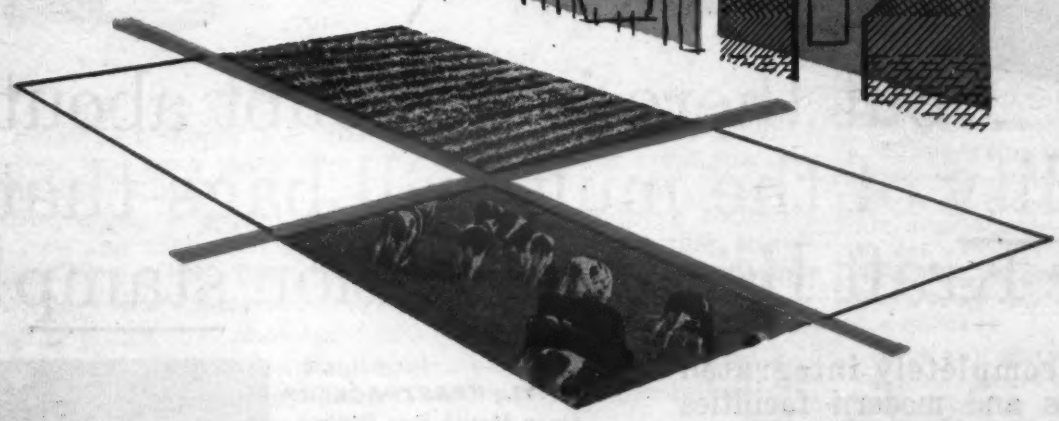
Backed by the skills and experience of its parent companies – Pittsburgh Consolidation Coal Company and Freeport Sulphur Company – NATIONAL POTASH offers important advantages as a dependable source of quality potash.

NATIONAL'S mining operations and refining processes will include the very latest industry techniques, and its storage and shipping facilities have been planned to meet efficiently the demand of the peak fertilizer season.

In addition, NATIONAL POTASH provides a free, comprehensive Technical Service to help manufacturers with granulation, formulation and other production problems. Write for complete information.





NATIONAL POTASH COMPANY
205 EAST 42nd ST. • NEW YORK 17, N.Y.

INSECTS

(Continued from page 1)

has caused widespread damage this summer, continued to reproduce heavily in areas of Illinois and Minnesota. The fall army worm continued to damage corn, grains and grasses in several states. Maryland, Delaware and West Virginia corn was damaged by corn sap beetles.

The corn leaf aphid was reported unusually abundant on corn in Delaware and damaging in some Colorado counties. Michigan, Oklahoma and Nebraska also report infestations. The corn earworm has caused some concern in many areas from Rhode Island to Utah.

Cotton remained under attack by several insects. The boll weevil migration continued in several states. A heavy attack on young bolls has been reported in some Georgia counties, and some boll damage by the weevil appeared in west Tennessee.

Bollworm damage has increased in Tennessee, Mississippi and Oklahoma, and moderate to heavy infestations have occurred in New Mexico. Some California and Arizona counties also report bollworm problems. Spider mites have continued to increase in Kern and Fresno counties in California, and appeared very heavy in some other areas in the state. Cotton fields in the plains area of Texas were being damaged by lygus bugs.

Vegetable crops, too, have suffered under a variety of damaging insects. The beet leafhopper was abundant in beet fields in central and eastern Idaho. A control program against this pest was under way in Imperial County, California. Truck crops in Idaho and eastern Virginia have been damaged by yellow-striped armyworms, and blister beetles have caused heavy damage to tomatoes in Lea County, New Mexico. Extremely heavy infestations of the carrot beetle in Kansas and the potato leafhopper in Wisconsin were also reported.

John S. Rogers Named Texas A&M Agronomy Head

COLLEGE STATION, TEXAS — Dr. John S. Rogers has been named to head the combined teaching, research and extension activities in agronomy of the Texas A&M College System effective Sept. 1. He succeeds J. B. Page, who recently was made dean of the Graduate School of Texas A&M and professor of soil physics in the department of agronomy.

Dr. Rogers was born in Monticello, Ark. He obtained a bachelor degree in agronomy in 1938 and a master degree in genetics in 1940 from Texas A&M. A doctorate in biology was conferred upon him in 1949 by Harvard University.

Some Rain Falls, But Drouth Persists In Mid-South States

MEMPHIS—Mid-South crop c ditions were spotty last week.

Scattered showers and cool wea er over the territory helped so but the hot, dry weather has cau an early opening of cotton and severely damaged late corn and p tures.

Extension officials in Arkans Mississippi, Missouri and Tennes said in their weekly crop letters t rain still is needed.

Cotton picking is under w throughout Mississippi as hot, d weather forced early maturity of t crop, the Mississippi Agricultu Extension Service said.

In some cases, the cotton is ope ing prematurely, resulting in sma bolls. Boll weevils and boll worm are still a problem, especially o young green cotton and irrigate cotton, A. C. Bennett, extensio entomologist, said.

Fall army worms (grass worm are causing severe damage to gra ing crops, hay meadows, late plant corn and lawns.

With most pastures drying up f lack of rain, many dairymen are pr paring land for the planting of oa and wheat for early fall and wint grazing, said W. R. Thompson, exte sion pasture specialist.

Arkansas crops had picked up bit as the result of rains, the A kansas Agricultural Extension Ser ice in Little Rock said. Rains esp cially benefited soybeans, althou additional moisture would help.

Cotton picking was expected to g under way about the middle of Se tember, with an estimated 29,0 Mexican nationals expected to he with the harvest.

The yield of medium and late co will be "exceptionally low" as t result of several weeks drouth whic hit about a month ago at a cruci growing period, the extension servi noted.

Rice prospects continued promi ing in all areas. Rains had spurre preparation of seedbeds for fall gra plantings in some areas, although was slower than usual.

West Tennessee row crops hav had some relief from dry weathe but the need for more rain still the farmer's paramount concern.

General rains throughout the are have aided greatly in preventing pr mature opening of cotton, but mor moisture is needed to insure firs rate crops, H. T. Short, district agen at Jackson, said.

Most serious damage has been re ported in the hill sections where dangerous amount of cotton is shed ding and premature bolls are blo soming.

Pastures have suffered as lan preparation is stalled by the dr weather. Fall planting is at a stan still.

Drouth damage to Southeast Mis souri farm crops has been slowed b spotty rains, but not enough rain fe to be of much benefit to cotton an soybeans, said W. F. James, Pemisco County agent at Caruthersville.

Kentucky Sales

LEXINGTON, KY. — Fertilize sales in Kentucky during May totale 142,326 tons, compared with 116,13 tons in May a year earlier, accordin to the State Department of Feed Fertilizer. May, 1956, sales include 126,336 tons of mixed goods and 15, 990 tons of straight materials.

SOILS SPECIALIST NAMED

COLUMBIA, MO.—Alva L. Pres ton has joined the Missouri Agricul tural Extension Service as a soil specialist. He formerly was assist ant manager of the plant food div sion of Missouri Farmers Assn. i Columbia.

Cigars and Multiwall Bags

Kraft Bag Corporation, as a manufacturer of multiwall bags, is in the same position as the cigar manufacturer who complained that everything to be said about his 25c cigars had already been said about 5-centers!

...but there is no doubt about the quality of the multiwall bags that bear the Kraft Bag Corporation stamp!

Gilman PAPER CO.

Our completely integrated plants and modern facilities producing every type of heavy-duty valve or open mouth bag, are second to none!

As an exponent of true specialization, there isn't a single known or desirable time-and-labor-saving development that we haven't already either considered, initiated, adopted or built into multiwall bags we are called upon to make for America's industries, while continuing our search for still better ways to package our customers' products.

If your product can be packaged in a multiwall bag—you can depend on us to make the bag to fit your product.

Investigate **The KRAFTPACKER®** *Open Mouth Bag Filling Machine for free-flowing material ... highest accuracy and production... reduces packaging costs at an unbelievable rate.*

KRAFT BAG CORPORATION

Gilman Paper Company Subsidiary
630 Fifth Avenue, New York 20, N. Y.
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Plants at St. Marys, Georgia and Gilman, Vermont

Special Retail Section

Better Selling

Richer Fields for Dealers

A SPECIAL CROPLIFE DEPARTMENT TO HELP RETAILERS IMPROVE MERCHANDISING KNOW-HOW

New England News Notes

By GUY LIVINGSTON
Croplife Special Correspondent

Despite the increase in population, re than two-thirds of Massachu- ts is still covered with forest. This s revealed by Commissioner of tural Resources Arthur T. Lyman. Mr. Lyman announced publication a forest survey made jointly by his partment and the U.S. Forest Ser- e. There are 3.3 million acres of est land in Massachusetts, growing billion board feet of saw lumber. twood saw timber is growing ut as fast as it is being cut, but dwood is growing three times as t. Nine tenths of the forest area rivately owned.

★ ★ ★

od Insurance

Massachusetts must change its con- tution to participate in any federal d insurance program, Sen. Lever- Saltonstall notified Worcester unty members of the legislature o have asked Gov. Christian A. rter to call a joint convention of Senate and House to adopt an endment to the constitution. The Legislature will have to ap- ve the amendment this year and o next year so that the voters can lot on it in 1958 to permit the te to take advantage of the federal urance plan in 1959.

★ ★ ★

rricane History

Hurricanes lashed New England k in the 13th century, before Co- bus was born, it was discovered researchers at the Harvard Forest Petersham, Mass. The researchers ve traced the havoc of smashing ricanes back to about 1400. Even ch earlier than that winds must ve torn and smashed Indian huts h the violence of hurricanes ex- ienced here in the last few years, y point out. The record of the hurricane de- uction is written in the hummocks New England. Dr. Earl P. Ste- ns, now of the Ohio Experiment tion, cut down every tree and ub on an acre of the Harvard for- and dug 60-odd trenches to probe mmocks. His chopping and digging r a four year period amassed the ient hurricane evidence.

★ ★ ★

iry Picture

Federal and state experts are nting a brighter picture for the w England dairy farmer for 1956 n they have been able to do for eral years. Consumption of dairy oducts has reached the highest per pita figure since 1951 and the use certain dairy products such as ice am is breaking all time records.

FIRM INCORPORATES

DOVER, DEL. — M&M Feed & rm Supply, Inc., filed a charter of orporation with the corporation partment of the secretary of te's office here. Authorized capi- stock of the firm is $250,000. ncipal office of the firm is located Frankford, Del.

Attract Passing Profits With

Efficient Outdoor Display Techniques

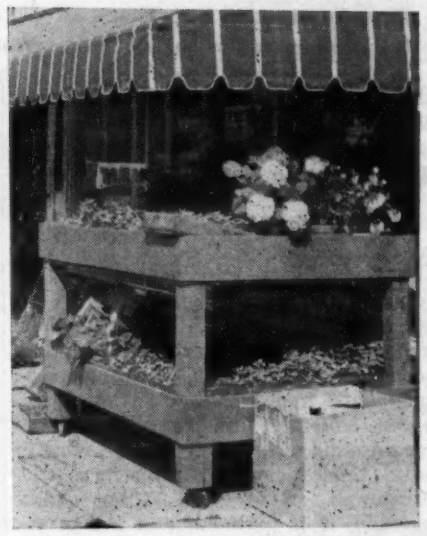
By AL. P. NELSON
Croplife Special Writer

There is one tremendous advantage which the farm supply dealer has over his competitors—if he will but make use of it—and this is the opportunity to display some of his merchandise outdoors many, many months of the year.

This is especially true of items such as fertilizer, insecticides, garden tools, power mowers, garden tractors, feeds and other products. Many other stores handling such items, such as super markets, independent groceries, drug stores, hardware stores, etc. are operating in buildings which face municipally owned sidewalks, and local ordinances prevent display of privately owned merchandise on municipal property.

However, many farm supply dealers are located at the edge of town or on side streets. Very often the store is located back a few feet from the municipally owned sidewalk, or the store may be adjacent an empty lot, permitting side of the store outdoor display. The dealer may have a parking lot out front, part of which can be converted to an outdoor store.

Why should a farm supply dealer bother with outdoor display? Why not just fix up the store front and the inside of the store, do a lot of newspaper, radio and direct mail advertising and rely on these factors to bring in the business? That's what many other modern, retail stores do, isn't it? What's good enough for them—with their big annual sales—is good enough for us.



DISPLAY RACK—Here is one example of a convenient outdoor display rack at the Spiller Feed & Seed Co., Tuscaloosa, Ala. The rack, which is used to display vegetable and flower plants, has wheels. It is taken outdoors every morning and wheeled inside at night. Racks such as this one are inexpensive and easy to build.

This is sound reasoning, of course. But it fails to take into consideration the fact that most of those other stores do not have outdoor display facilities. If they did, you can bet your last bag of fertilizer or can of rose dust that they would take advantage of it and exploit it to the skies.

The good merchandiser, the man alert to all sales opportunities, whether they exist in the store, or outside it, will work tooth and nail to use such opportunities. In fact, many retailers who are building new stores today are setting the fronts back five to ten feet where possible, so that outdoor display of their merchandise is permitted.

Following are some reasons why outdoor display, when the weather is favorable, can be a business making procedure for the farm supply dealer:

1. You get your merchandise, including specials, before the attention of more traffic than comes into your store. Not only do you reach the people who enter your store to buy as regular customers, but also you reach those hundreds, even thousands of people who walk up and down the street on business and other errands.

If you had no challenging, attractive outdoor displays, these people—those who walk up and down the street, and those who drive or ride in vehicles—would perhaps not notice your store, attractive though the front might be.

2. Attractive outdoor display promotes impulse sales. Depending upon the type of business, impulse sales are said to account for between 30 and 70% of all sales today. The ultimate customer is said to see an ad, a window display, an outdoor displayed item, a counter displayed item—and then get the urge to buy.

If this is true then the farm supply dealer who does not use outdoor display of merchandise is missing a surefire merchandising bet. He is failing to get extra sales just because he does not bring some merchandise outdoors every day where more people can notice it.

Look at it this way. If a good looking model would sit in a department store changing nylon stockings, she would attract many people, wouldn't she?

But, if she sat on a chair on a decorated platform out on the sidewalk, she would attract much more attention. Why? Because she went to the people with her act—did not wait for them to come to her.

3. Outdoor display establishes your type of store in the minds of prospects.

Of course, your regular customers know that you sell farm supplies, but new customers—those you must pluck from the roaring mob on sidewalk and highway—do not know it. Outdoor display—even if prospective customers only catch a glimpse of the displays as they walk or ride by, establishes your

(Continued from page 15)

SHOP TALK OVER THE COUNTER FOR THE DEALER

By EMMET J. HOFFMAN
Croplife Merchandising Editor

Below is a sketch of a "free loan window," the sights of which I'm sure you have never seen. To retailers, such a window just doesn't make sense.

But, states a prominent farm supply merchandising authority, just stop and think. "Don't you have 'free loans' in your store?" Chances are you do. The only element lacking may be a small office with a cage-like appearance and a teller's window.

Why is this so? The expert puts it this way:

"Anytime you sell merchandise on credit you have given up possession of the merchandise without receiving anything in return for it except the customer's promise to pay. This is the equivalent of loaning money without collateral or interest.

"Why is it a 'free loan' It is a 'free loan' because your customer to whom short time accommodation credit is granted pays no more for the merchandise than the customer who pays cash.

"Cash business is preferable, but if you are to make free loans (extension of credit) for the purposes of obtaining business, then you should do it in a business-like way and observe these principles:

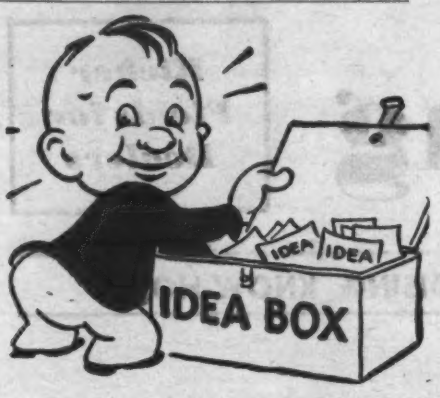
"1. Know borrower (customer) before making loan (extending credit).

"2. Insist on references and investigate them before making loan (extending credit).

"3. Explain to borrower (customer) that it is necessary to know when the loan will be paid (payment of customer's account) in order to meet your own bills.

"4. Insist upon full payment of loan (account) when it is due or request your customer to call and see you personally before you grant further 'free loans' (credit).

"5. Don't be satisfied with merely a financial rating on the borrower (customer), but learn something of his character and general reputation."



What's New...

In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

No. 6460—Bag Design Trends

The part played by redesigned fertilizer bags in increasing sales is emphasized by the Percy Kent Bag Co. Information concerning trends and sources in bag design developments is available from the company. Company officials state that fertilizer brand identification and brand selling are important in convincing the farmer to choose a particular product. Display advertising on the product package offers a major opportunity to the fertilizer manufacturer, it is claimed. Products in new containers—with the design revamped to look cleaner, brighter, more modern and with the product benefit clearly pictured—enjoy an unmistakable sales boost, it is stated. Secure more complete details by checking No. 6460 on the coupon and mailing it to Croplife.

No. 6461—Blight Booklet

An illustrated booklet on the recognition and treatment of early and late blight in 18 different crops is being made available by the Chem-Bam Division, Chemical Insecticides Corp. Also desribed in the booklet is the company's new fungicide developed for blight treatment. Secure the booklet by checking No. 6461 on the coupon and mailing it to Croplife.

No. 6462—Insecticide

A new liquid insecticide, trade-named Drinox, has been placed on the market by Panogen, Inc. The product contains aldrin and is claimed to be "effective in protecting newly planted seed and young seedlings from attack by wireworms, seed corn maggots and a variety of other soil-dwelling insects." It is recommended for treating wheat, oats, barley, rye, cotton, corn and sorghums. Seed germination is not harmed, it is claimed, and the product comes as a true solution (not a slurry), ready to use without mixing or diluting. For further information check No. 6462 on the coupon and mail it to this publication.

No. 6463—Treatment For Burns

A product called by the trade name, G-63 burn relief spray, is being produced by the General Scientific Equipment Co. It comes in a push-button spray bomb and the product is claimed to treat burns and protect the skin with a cooling emollient film. Secure more complete details by checking No. 6463 on the coupon and mailing it to this publication.

No. 6464—Hopper System

The K. E. Savage Co. has available a new bulletin which gives a description and specifications of its hopper system. According to the bulletin, the system can be placed in any fertilizer plant having bays measuring at least 12 by 12 ft. square. The system's method of operation is described and a number of pictures depict various arrangements. In the pages devoted to specifications are sections titled: Elevators, conveyors, bin, scale, screen, swivel spout and signal panel. A number of photographs show conveyors in use. Secure the bulletin by checking No. 6464 on the coupon and mailing it to Croplife.

No. 6465—Rubber Tank Lining

A 40-page booklet describing the new Gates 50H rubber lining for chemical fertilizer storage tanks has been prepared by the Gates Rubber Co. The company asserts that the lining protects tanks against the corrosion of any chemical fertilizer solution now on the market or presently planned. Corrosion tables, proper tank selection, diagrams, specifications and specific uses are contained in the booklet which may be had if you check No. 6465 on the coupon and mail it to Croplife.

No. 6466—Bagging Cost Kit

A new "do-it-yourself" packaging work kit, designed to help fertilizer manufacturers figure bagging costs, is available at no charge from Union Bag-Camp Paper Corp. The kit contains tables for determining the labor costs per ton of material and per thousand bags at varying production rates. Also enclosed is a chart which figures the cost of multiwall bag closing materials (cotton thread, rayon thread and filter cord) as well as a bag cost comparison sheet. Secure the kit by checking No. 6466 on the coupon and mailing it to Croplife.

Send me information on the items marked:

- ☐ No. 5509— Tail Gate
- ☐ No. 5518—Weighing Machine
- ☐ No. 5519—Insecticide
- ☐ No. 5520—Floor Cleaner
- ☐ No. 6448—Sales Aids
- ☐ No. 6449—Soil Sterilant
- ☐ No. 6452—Brochure
- ☐ No. 6454—Dispersant Bulletin
- ☐ No. 6455—Product Bulletin
- ☐ No. 6456—Fertilizer Handbook
- ☐ No. 6457—Booklet
- ☐ No. 6458—Tractor Shovels
- ☐ No. 6459—Movies
- ☐ No. 6460—Bag Design
- ☐ No. 6461—Blight Booklet
- ☐ No. 6462—Insecticide
- ☐ No. 6463—Burn Treatment
- ☐ No. 6464—Hopper System
- ☐ No. 6465—Tank Lining
- ☐ No. 6466—Bagging Cost Kit

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Also Available

The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

No. 5518—Net Weighing Machine

A new automatic net weighing machine has been announced by the Exact Weight Scale Co. Company officials state that "the machine incorporates an even balance 1 to 1 ratio precision industrial scale with visual indicator; smooth operating net we hopper and automatic cut-off c trols with efficient material handl equipment. The over-under indica for visual checking eliminates n for a separate checkweighing ope tion. Calibrated adjustments w counterweights of known value, gr uated beam and poise and scale dicator make this an ideal weigh machine for packaging, sacking batching." Two models, one weights up to 3 lb., and the ot from 3-10 lb., are available. Sec more complete details by check No. 5518 on the coupon and mail it.

No. 5519—Insecticid

The Pest Control division, J. Holcomb Mfg. Co., Inc., is produc a new concentrated insecticide wh the company recommends for use a grain protectant. The prod mixes with water to produce a spr claimed to be non-toxic and safe use around all foodstuffs. The p duct, known as Insekil E. C., conta pyrethrins and piperonyl butoxi and is said to produce quick kno down and kill of a large number flying and crawling insects. Gal and quart size containers are be used. For more information che No. 5519 on the coupon and mail to this publication.

No. 5520—Floor Cleaner

Multi-Clean Products, Inc., has troduced a new lightweight 12- floor cleaning machine known as t Lite 12. It weighs 35 lb., and is s to be ideal for areas up to 2,000 ft. Helical gears revolve on b bearings, insuring positive dr and quiet operation, the manufactu claims. The gear unit is lubricat for life and requires no maintenan The machine has a full 12-in. bru spread with a speed of 175 rpm. is powered by a ⅓ h.p. industr type motor. Secure more compl details by checking No. 5520 on t coupon and mailing it to this pub cation.

No. 6448—Sales Aids

comprising newspaper mats, displ banners, posters, radio commerci and promotional literature are ava able to dealers from the Agricultu Ammonia Institute. A nominal char is made for some of the sales ai according to institute officials. Secu more complete details and price qu tations by checking No. 6448 on t coupon and mailing it to Croplife.

No. 6449—Soil Sterilant

A six-page leaflet which outlin the various methods by which t soil sterilant, trade-named Vapa may be used to destroy weeds, fun nematodes, and soil insects has be published by Stauffer Chemical C The leaflet details the types of pe which the water-soluble soil ste lant will control and how it may applied by hand, sprinkler, injecti plow sole and in irrigation waters soils for preplant treatments of se beds, potting soil, ornamentals, n sery stock, field crops, row cro orchards, vineyards, turfs and law Copies are available without char Check No. 6449 on the coupon a mail it to Croplife.

No. 6454—Dispersan Bulletin

A seven-page technical bulletin N 306 describing the use of Polyf sodium lignosulfonate as a modera ly active dispersant in wettable secticide powders has been publish by the Polychemicals division, W Virginia Pulp & Paper Co., and available upon request. The prod is made in five grades varying

ree of sulfonation. Three of the des are said to be widely used as ersants for wettable powders. firm's announcement states that ere are numerous other commer- and potential applications for the ious grades of Polyfon where a ersing agent of moderate activity required." The bulletin describes product in more detail and lists e of these uses. The bulletin de- bes properties of the product and s instructions for preparing in- ticide wettable powders. Among formulations given are those for T, dieldrin, aramite, heptachlor, aphene and malathion. The product also been used successfully in king wettable powders with chlor- e, BHC, parathion, aldrin and mond Alkali K-101, it is an- nced. Secure the bulletin by cking No. 6454 on the coupon and iling it to Croplife.

o. 6455—Product ulletins

The American Potash & Chemical rp. has issued informational prod- bulletins on the series of electro- micals produced at its Henderson, vada, plant including sodium and tassium chlorate, ammonium and tassium perchlorate and manga- se dioxide. Bulletins on the com- ny's chlorates and perchlorates are tended for use by manufacturers of ed killers, defoliants and other in- stries. The bulletins include analy- , description and applications in rious manufacturing processes of e company's electrochemicals. Se- re the bulletins by checking No. 55.

o. 6456—Fertilizer andbook

A handbook on fertilizer manage- ent has been printed by the Kan- s City Testing Laboratory as a rvice to fertilizer dealers and their stomers and is available at a nomi- l cost. The 26-page booklet is a pro- ct of the soil consultant division of e 47-year-old company which was tablished recently to act as a com- letely independent soil testing facili- for agricultural interests primarily the Midwest. Several chapter eadings include "General Manage- ent of Soils," "Meaning of Soil Test alues and Fertilizer Suggestions," Fertilizer Recommendations for Var- us Crops" and "How to Get the ertilizer Management Program for our Farm." The booklets not only re suitable as a guide to dealers but ay be obtained at a nominal cost r dealer customers. The firm also ffers a soil sampling program for ealers. More complete details may e had by circling No. 6456 on the oupon and mailing it to Croplife.

No. 6452—Brochure

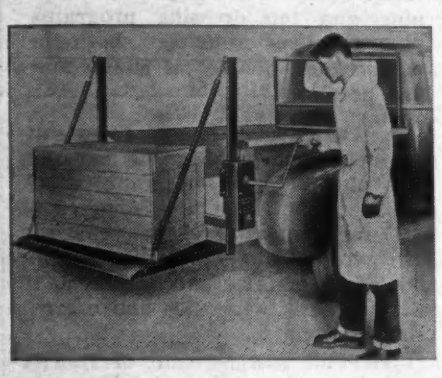
A 12-page illustrated brochure that ives information for help in con- rolling flies, mosquitos and other in- ects has been released by the Chemi- al Insecticide Corp. The brochure escribes Chem-Hex T, trade name or a newly developed formulation, hat contains both pyrethrum for quick ill and a neutralized form of benzene exachloride for residual kill. It gives nstructions for the use of the prod- ct in all types of sprayers and re- orts on its effectiveness in field tests. Secure the brochure by marking No. 452 on the coupon and mailing it to

No. 6457—Agricul- ural Chemicals

A new book designed to give a gen- eral description of the company's gricultural chemicals has been pre- ared by the Shell Chemical Corp. ncluded in the text is information concerning the uses for aldrin, diel- drin, endrin, D-D soil fumigant, Nemagon soil fumigant and allyl alcohol. In addition to general prod- uct information, a master insect con- trol list for the insecticides and a literature order blank are included. To order any of the company's litera- ture, the order page may be torn out, the quantities desired filled in along with the proper address. Secure the book without charge by checking No. 6457 on the coupon and mailing it to Croplife.

No. 5509—Elevating Tail Gate

Mid West Body & Manufacturing has announced its new "Jiffy-Lift" elevating tail gate for pickup and



express truck bodies. The product is a completely "packaged" kit, ready to install. It weighs 175 lb. and only six bolts are needed for installation. The all-steel, ramp-type elevating tail gate has a capacity of 600 lb. The patented design features a lifting mechanism, having ball bearings throughout for easiest operation, company spokesmen say. Secure more complete details by checking No. 5509 on the coupon and mailing it to this publication.

No. 6458—Tractor Shovels

Bulk material handling methods in fertilizer plants and other chemical industries is described in a new bulletin published by the Frank G. Hough Co. The bulletin is entitled, "Modern Payloader Tractor Shovels in Industry." Specifications for the company's line of tractor shovels are included, as is a map showing the locations of the more than 200 distributors handling and servicing the company's units. A copy of the bulletin will be sent if you will check No. 6458 on the coupon and mail it to Croplife.

No. 6459—Gardening Movies

Four sound, color, 16 mm gardening movies are available for showing without charge, announces Swift & Co. officials. The four are: "Dreams Come True," (parts one and two); "Food for Thought" and "How Does Your Garden Grow?" For further information check No. 6459 on the coupon, clip and mail it to Croplife.

Connecticut Sets Up Plant Environment Group

NEW HAVEN, CONN. — An administrative change effective Sept. 1 brings together research in plant environment at the Connecticut Agricultural Experiment Station, James G. Horsfall, director, announces.

The station Board of Control has set up a new department of soils and climatology, with Paul E. Waggoner as head. Dr. Waggoner has served since April as head of the department of climatology; he has been on the station staff since 1951. Soils research under that name began at the station in 1923.

RINGING THE CASH REGISTER

Profitable Sideline

The sale of 10 garden tractors a month is not unusual for Guzardo's Feed & Supply Co., Nederland, Texas. The store is devoting more display space to tractors and has set a goal of 10 tractors a month for each remaining month of 1956. The main selling idea is the carrying of a tractor on each delivery truck as it makes its rounds each day. The routemen make an average of four demonstrations each week to customers along their routes. They average about three sales per month with these demonstrations. "We find that many customers are more interested in the tractor when we have it on the truck at their homes," explained L. R. Guzardo, owner. "If we ask to take it to their homes for a demonstration they often ask to let them think it over. But, when we have it on the truck at their home, they don't feel obligated and are more anxious for a demonstration."

50% Lack Systems

One feed merchandising authority states that 50% of midwest feed dealers do not have a bookkeeping system adequate enough to tell exactly what their expenses and profits are at the end of the year. Few businesses prosper and expand without a good set of records. If they do, it is simply by "guess and by golly."

Delinquent Accounts

"I had heard at a recent feed convention that there is no substitute for a personal call when a delinquent account is involved, so I decided to test it. I had just gotten a $900 supplier's bill and I needed the money. Within a day and a half I had collected more than enough to pay for that $900 bill." These are the words of a dealer concerning past due accounts. The dealer continued that he decided to go right down the line and make personal calls on all his delinquent accounts. He told each one in a kindly manner that he needed the money and asked the farmer to pay whatever was possible. Within four days the dealer had collected $2,250. Further, he states, two of the farmers who had been overdue for six months and hadn't been in the store for that period, came in within two weeks and made purchases.

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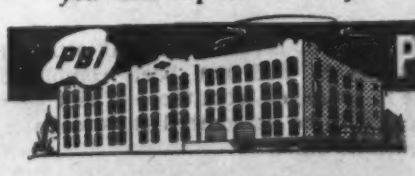

PRIVATE BRANDS, INC.
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Kansas City, Kansas

What's Been Happening?

This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on the regional circulation plan up to date on industry happenings.

The U.S. Department of Agriculture announced that more than 550,000 agreements, covering over 12,300,000 acres of croplife, were signed under the 1956 acreage reserve program of the soil bank . . . The tenth annual Belt-wide Cotton Mechanization Conference heard speakers stress that every advantage must be taken of opportunities to lower production costs in order to keep cotton competitive.

Forecasts for cotton production in the U.S. for 1956 were down approximately 8% from last year, as the USDA crop reporting board made its forecasts in August. This year's yield was set at 13,552,000 bales, as compared to 14,721,000 bales harvested in 1955. Yields per acre were up, reflecting the effects of growing cotton on the best land, the use of more and higher analysis fertilizers, and other improved cultural practices, it was noted.

Tolerances for the fumigant, ethylene dibromide were proposed by the U.S. Department of Agriculture in order that this material might be employed in the Mediterranean fruit fly eradication program.

Monsanto Chemical Co. announced that it will build a new phosphoric acid unit at the Colorado Fuel and Iron Corp. plant in Pueblo, Colo. In cooperation with CF & I, the resultant phosphoric acid will be used in production of diammonium phosphate to be marketed under CF&I's trade name, "DAP".

Woonsocket Color & Chemical Co., Woonsocket, R.I., approved an expansion program for the firm's Nitro-Form agricultural chemicals division. Expenditures of from a half million to three-quarters of a million were authorized for the project. The Nitro-Form division will be split into a separate corporation for the purpose of sales and future expansion. Future plans call for the basic production of formaldehyde and urea formaldehyde slurries for the fertilizer industry.

Potash deliveries in North America were up about 3%, the American Potash Institute reported. However, a decline in deliveries in the U.S. itself was noted. Potash for agricultural purposes in the continental U.S. amounted to 1,845,943 tons K_2O, a decrease of less than 3% under last year. Increased tonnages were noted for Canada, Hawaii, and Cuba; with the latter country registering an increase of 200%. Deliveries in Puerto Rico were down 10%, the report said.

The discovery of one Hawaiian Melon Fly in California alerted entomologists in that state to watch carefully for more of this destructive pest. The single specimen, at first tentatively identified by California entomologists as the Hawaiian melon fly, was sent to the Smithsonian Institution in Washington, D.C., where it was identified positively as that pest.

The Great Plains Agricultural Council announced plans to study plant growth and development under varying climatic conditions. Its objectives were described as finding areas with constant climate patterns and studying its influence on specific crops; to classify the areas as to the climatic risk according to specific crops; and to study problems of planning farm organizations under conditions of risks and uncertainties due to climate variabilities.

USDA announced an engineering project to develop radio telephone service to more isolated rural areas. The program was planned by the Department's Rural Electrification Administration and will be carried out in collaboration with private firms under contract with the Department.

Crest Chemical Co., Watertown, S.D., began construction of a $200,000 fertilizer plant. It will manufacture high analysis grades of granular plant food, according to Marlowe Sharf, president.

The annual fertilizer conference at the University of Kentucky was held Aug. 1, sponsored by the National Plant Food Institute, the Tennessee Valley Authority, and the Kentucky state office of the Agricultural Stabilization and Conservation program. Speakers represented the Institute, TVA and the University of Kentucky in asserting that the fertilizer industry and the U.S. Department of Agriculture's soil bank are acting as strong influences in stabilizing agriculture.

Elko Fertilizer Co. at Elkhorn, Wis. was formed for the manufacture and sale of mixed complete neutral fertilizer solutions and aqua ammonia. Some of the company's products will be mixed with pesticides for control of corn rootworm, according to Nathan J. Eck, Williams Bay, Wis., head of the new firm.

The Southwestern Fertilizer Conference at Galveston, Texas July 18-20 heard experts discuss the merits of different forms of fertilizers, and of manufacturing processes.

A triumph in cross-pollination between a wildgrass and wheat, to give the wheat resistance to rust, was announced by the Missouri Agricultural Experiment Station and the U.S. Department of Agriculture. E. R. Sears, plant breeder with the ARS, arrived at the desired objective after crossing and re-crossing different grasses and wheat through five intricate steps.

A fertilizer industry conference held at the University of Illinois on July 26-27 featured speakers who discussed the economics of soil fertility. Sound management practices will increase the need for fertilizers, one speaker declared, while another stated that it is cheaper now to buy nitrogen than it is to grow it through legumes.

The American Potash Institute, Washington, D.C. stated that although final figures on potash deliveries in the U.S. had not been completed, (Croplife issue of August 6) little change in tonnages from those of last year were expected. Export figures were expected to be up somewhat, to counterbalance an expected slight decline in domestic sales.

FARM SERVICE DATA
Extension Station Reports

Winners in the 1956 Massachusetts Green Pastures Contest have been announced.

Winning Massachusetts farmers were the Manuel J. Bettencourt & Sons farm, South Westport; the Mainstone Farm, Wayland, and the farm of Theodore Chase, Sheffield. According to the judges, "All three farms had excellent pasture clipping and top dressing programs plus excellent roughage both in pasture and quality of silage and hay produced."

The Bettencourt & Sons farm consists of a herd of 55 grade Holstein cows plus 22 head of young stock and 2 bulls. There are 86 acres of feed and cropland. Last year the herd average was 12,600 lb. of milk and 466 lb. of fat. The Bettencourts sell their milk wholesale and use rotation grazing.

Under the management of Dewitt Mitchell, a University of Massachusetts Stockbridge graduate, class of '48, the Mainstone Farm maintains the oldest continuous purebred Guernsey herd in the U.S. There are 90 cows, 80 head of young stock, and 4 bulls on the 200-acre layout. The herd average last year was 8,600 lb. of milk, 405 lb. of butterfat.

Theodore Chase, a 1948 Stockbridge graduate, operates an 89-acre farm with 27 mixed Jersey and Holstein cows, plus 18 head of young stock. Chase uses rotational and strip grazing in his feeding program. Herd average last year was 9,950 lb. of milk, 405 lb. of butterfat.

★

Details of the new "Pennsylvania trap" for catching insects, developed at the Pennsylvania Agricultural Experiment Station, have been announced by Dr. S. W. Frost, who said the new light trap was superior to any tested.

Dr. Frost explained that the new device uses a combination of black light (ultraviolet) and the usual visible light. This combination, when tried in the Pennsylvania insect survey attracted not only far larger numbers of night-flying insects but also trapped many kinds of pests not previously caught in the usual light traps.

Dr. Frost said that "results indicate that some insects are more strongly attracted to ultraviolet frequencies of light, while others respond to the visible light areas." He described the "Pennsylvania trap" incorporating a 15-inch lamp surrounded by metal baffles extending in all four directions. When used in the same areas, this new type trap provided catches far in excess of other types and makes in common use, Dr. Frost reports.

For many years, entomologists have been using light traps to measure the periodic build-up of various pests as a means of warning growers when to expect severe attacks on their crops, or animals. Dr. Frost has been in charge of such survey work in Pennsylvania for the past 20 years.

★

A single application of a new poison ivy killer gave complete control of established ivy in an old orchard at the Experimental Farm of the Connecticut Agricultural Experiment Station in Mt. Carmel. The material, amino triazole, stopped the ivy in its tracks: there was no new growth in 1956, according to the station.

Amino triazole, in trial, was applied with a hand sprayer on Aug. 1955, at three different rates, with and without wetting agent and at other chemical known to retard plant growth. No comparisons among these treatments were possible because the lowest concentration used alone—¾ of a pound of active material to the acre—killed all ivy, as did all other treatments with amino triazole.

★

Vermont Green Pasture winners for 1956 are David Batchelder, Stowe; Ralph and Everette Maynard, Moretown, and Arthur Packard and Son, Jericho.

All three farms are producing over 200,000 lb. of 4% milk per man showing high labor efficiency.

★

"Chemical weeding of strawberries is not a cure-all, but it may reduce hand labor by perhaps two-thirds. This is the opinion of Doctor Otis F. Curtis, Cornell scientist at the experiment station at Geneva.

"Chemical weeding may also serve as an emergency means for reclaiming strawberry beds badly fouled with weeds," he adds.

Weeding is the largest cost item in strawberry growing, explains the station worker. "Yet the same labor situation that causes this often makes it uneconomical to pick weedy beds," he continues. "So the best chance of reducing over-all production cost is by improving methods of weed control."

Pasture Renovation Boosts Dairy Profits

CHICAGO—The Middle West Soil Improvement Committee reports that pasture renovation has helped many farmers double or triple the number of dairy cows they can carry per acre. Pasture renovation can transform rundown fields into high-yielding, profit-making pastures, the committee points out. This helps farmers produce all the roughage their cows need.

A good renovation program involves replacing weak, weedy sod with high-producing stands of legumes and grasses without exposing the field to washing and gullying from rains and snows, says the committee.

The program requires the use of fertilizer to build up the soil's productivity so it can feed the forage crops. It means making a good seed bed and seeding grasses and legumes at the proper time.

In some cases, farmers use plows for shallow or skin plowing. Most farmers, however, use a disc or a spring harrow to work up the ground.

Pasture renovation can cost as much as $25 per acre, depending on how much fertilizer is needed and how many times a farmer goes over the field. But it is an investment that can pay off in greater profits per acre, through higher yields and lower costs of yield, a greater cattle carrying capacity and increased production per acre.

Doing Business With

Oscar & Pat

By AL. P. NELSON
Croplife Special Writer

Russ Collins and Charley Hassler were eating their noonday sandwiches in the fertilizer warehouse of the Schoenfeld & McGillicuddy firm. They sat on fertilizer sacks, and as was the custom they discussed almost everything under the sun from baseball to farming, to fishing, to Marilyn Monroe. They were single. Fred Evans and George Fletcher, the other employees, were married, and went home to lunch every noon.

"You know, Charley," said lean freckle-faced Russ Collins, finishing the green ends of a fresh onion, "things are kinda dull around here, ain't they?"

"Yip," agreed Charley, the chubby fellow who loved his pastries and other sweets. "Pat and Oscar have been mad at each other about collections and haven't spoken for four days. I don't like this kind of fighting — where they both keep their mouths shut. It's more fun for us when we kin hear them arguin'."

Russ Collins bit into an apple. "Yeah, especially since Tillie threatened to quit if they kept arguin' in the office. Now they finish up in the warehouse, where we can listen to them. I was goin' to quit this job—until Oscar and Pat started comin' out into the warehouse to finish their fights."

"That Pat," Charley Hassler said. "I kin see where Oscar gets mad at him, spendin' money on all those ideas. If it wasn't for Oscar, I'll bet we wouldn't get paid some Saturdays."

"Oh, that Oscar," Russ Collins grinned. "Why he's so tight I'd bet he'd bury his grandmother in a burlap sack to save the price of a pine box. He must have picked up a million paper clips off the floor in the six years I've worked here. He ought to start a steel salvage mill."

"Yeah, but he's got the moola, Russ," Charley said respectfully. "He'll never starve. Everything he buys, he buys for cash, I hear."

Russ chuckled. "Yeah, when he buys something, then it is news. He goes in a store about once a year. Somebody told me that everytime he goes to the bank with the deposit he looks in all the waste-baskets for paper clips. He doesn't care who sees him."

"If I had one-tenth of Oscar's dough, I could marry Susie Gebhard, rent a farm and go into business for myself," Charley said wistfully.

Russ grinned. "So you like Oscar, eh? Well, you're German and you would. But for me, I'll take Pat. He puts life and adventure and fun into his work. He is always pepped up about something. I like that. But I don't like this silence between Pat and Oscar. If only I could get them fighting again. Then things would be normal around here."

"Fighting!"

Freckle faced Russ nodded. "Why sure, even the customers like to see them scrap. Lots of customers ask me when they come in for fertilizer, 'Well, what are Oscar and Pat arguin' about today?' You've heard 'em ask that, too."

Charley was a little slow on thinking. "That's right, I have."

Russ winked and said in a low voice. "Well, I tell the customers, too. Sometimes I add a little to the arguments, a few cuss words, etc. Boy, how they lap that up." Proudly, "I can tell yuh, Charley, I have added to the reputation which Oscar and Pat have around these parts."

Charley looked shocked. "You'd better watch out, Russ. Oscar and Pat might hear you. Or a customer might go back to them and snitch."

"So what?" said Russ. "I can get another job easily. Besides they won't fire me so quick. I sell too much fertilizer and insecticides for them."

"Yeah, you do," Charley agreed a little enviously. "I don't see how you do it. I wish I could."

Russ Collins' chest expanded. "Aw shucks, there is nothing to it, Charley. You just talk with folks, get friendly with them, turn on the personality, and first thing you know they like you. Then you suggest that it's a good time to buy fertilizer, and first thing you know you've made another sale."

"I don't like to talk to people," Charley admitted. "I get all tied up inside. And besides I want to get back to my regular work, like loading bags, or fixing stock."

"Why you talk just like Oscar," said Russ in surprise.

"And you talk like Pat," came back Charley, "always shootin' off your mouth."

Russ Collins' mouth tightened and his eyes narrowed. "Who—me? Why you measly little tightwad, all you think of is money—like Oscar. For two cents I'd bust you right on the nose, you—"

At this moment, Pat McGillicuddy came back from lunch, whistling cheerily. "Hello, boys," he said, then stopped. "What's the matter—you both look mad and your faces are as red as beets!"

Russ Collins managed an embarrassed laugh. "Oh, we had a little argument, Pat. It wasn't too important. You know how it is."

Pat looked at them for a moment and then chuckled slightly. "So you fellows have arguments like Oscar and me. I hope you aren't learning habits like that from us."

"Oh, no," Charley said. "We argue, but we always make up later and laugh about it. Don't we, Russ?"

"Why sure," grinned Russ. "Right after a fight, I'll often borrow a five dollar bill from Charley for a date. He's got lots of dough saved, just like Oscar. And he only charges me 5 per cent interest until the next pay day."

Pat laughed real hard then. Finally he said. "I've learned a lesson from you boys. When Oscar comes back from lunch, I am going to meet him three-fourths of the way. I'll say I'm sorry and we'll be talkin' to each other again."

"And fightin' real loud," Russ suggested boldly.

"Perhaps," Pat said, and went into the office.

Russ sighed and stuck forth his hand to Charley. "Old boy, I'm sorry. Will you lend me a ten until next pay day?"

"A ten? I've never lent you more than five before."

"I know," Russ winked. "But this is a real heavy date — a platinum blonde, and how they love to spend money."

Charley reached into his pocket, brought forth a thick purse and peeled off a ten spot which he gave to Russ. "Five per cent, as usual," he said.

Things were back to normal again, Charley Hassler realized happily. Russ was his friend, borrowing money again, and Oscar and Pat would be fighting once more, talking again.

Maine Bankers Publish Bulletin on Profit with Fertilizer

WASHINGTON—The Maine Bankers Assn., in cooperation with the University of Maine and the National Plant Food Institute, has produced a 16-page bulletin on "More Profits from Fertile Fields."

The bulletin, published by the Maine Bankers Assn., has a prefacing statement by A. L. Deering, dean of agriculture of the University of Maine, who points out that: "A prosperous agriculture for any area is dependent upon having a group of well informed people using, with intelligence, the available soil resources within the natural limitations imposed by weather."

In the profusely illustrated bulletin, substantiated statements are made that:

(1) Fertilized pastures bring increased profits; and

(2) Efficient potato production must include soil sampling and recommended amounts of fertilizer.

Pep Up Weekly Ads With Tribute

A good idea for boosting readership of newspaper advertisements is the "tribute of the week" plan.

Here is how the idea works. Suppose that you have an advertisement regularly in your weekly newspaper of a quarter page size or slightly less. Use three-fourths of the space, if you wish, for copy and mats which advertise the farm supplies which you stock. Reserve the last fourth of ad for copy which can be entitled "Tribute of the Week."

In that reserved space you can print a tribute to some farmer, or farm group, who has made some worthwhile achievement.

If you wish, you can offer a prize to every farmer whose achievement is worthy of mention in your Tribute of the Week section. You can be sure that many farm folks will read that section regularly because they find it interesting. And when they read that special ad they will read the rest of your ad, too, more thoroughly than otherwise.

NAMED TO CSC POST

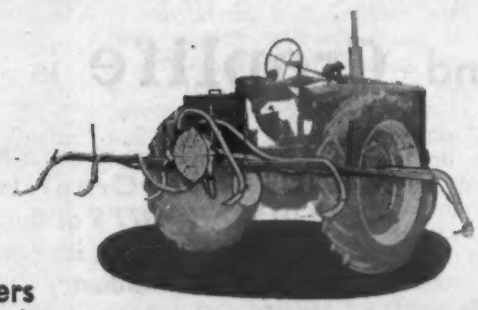
STERLINGTON, LA.—William W. Wilson has been named manager of terminals for the petrochemicals division of Commercial Solvents Corp., it has been announced by J. E. Wheeler, general manager, production department, petrochemicals division. With CSC since 1936, Mr. Wilson has held a series of positions in the company's research, engineering and production programs. Prior to joining CSC, Mr. Wilson was engaged in water survey activities with the state of Illinois as a staff chemist.

BLUE

BLUE LINE PRODUCT

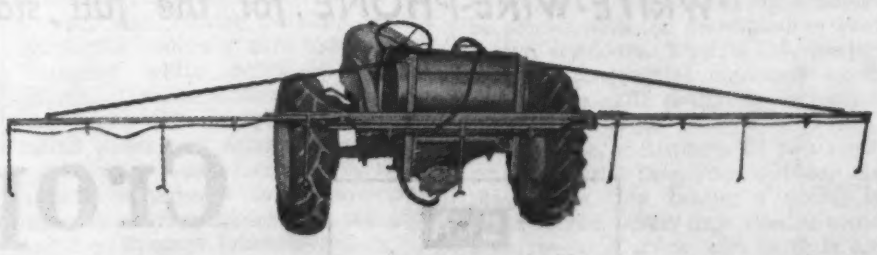
Dependable Farm Equipment Since 1886

the Way to Dust or Spray



5 & 6 Row Blue Dusters featuring high strength aluminum alloy fan blade and housings, V belt drive, steel boom.

DUSTERS



BLUE 6 Row Sprayer with folding boom. Designed for row crop insect control. Featuring Blue-Twin Piston PTO Pump.

SPRAYERS

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FOR RICHER FIELDS

PUBLISHED EVERY MONDAY

A WEEKLY NEWSPAPER FOR THE TWO BILLION DOLLAR AGRICULTURAL CHEMICAL INDUSTRY

AUGUST 23, 1956

Impact of Farm Law on Industry Hinges on Diverted Acre Policy

Cover Crop Provisions of ACP Outlined

Fall Fertilization, Need for Balanced Fertility Stressed at Wisconsin Ammonia Meeting

Minnesota Armyworm Campaign Saves $40 Million

Croplife delivers the KNOW-*NOW*!

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ONLY A WEEKLY NEWSPAPER can keep the industry up to date on the fast-moving plans for expansion of plants, new plant construction, changes in personnel—news of importance to the decision-makers of the industry *NOW*.

ONLY A WEEKLY NEWSPAPER can keep the industry up to date on new developments reported by experiment stations, outlined at association conventions and regional meetings, announced by industry researchers—news of value *NOW*.

and Croplife is the ONLY WEEKLY NEWSPAPER serving the industry

THAT'S WHY Croplife is changing the *READING HABITS* of the agricultural chemical industry by giving its readers—the decision-makers of the industry—the know-how, the know-what, the know-when and, most important, the know-NOW. That's why Croplife is *MUST* reading.

TO ADVERTISERS interested in the agricultural chemical industry this means, logically, that Croplife is a *MUST* medium for their advertising message. Keep your story up to date—give your customers the news and information about your products they need in the *week-to-week* operation of their business.

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MINNEAPOLIS
2501 Wayzata Blvd.
FEderal 2-0575

OUTDOOR DISPLAY

(Continued from page 9)

type of store in their minds, also your location.

Many will remember the merchandise, your location, etc. and the memory of it will flash into their minds when they need farm supply items.

And if you have convenient parking, many customers will note that, too, for they are very partial to stores which have easy access to parking spots. Here, too, is an opportunity for you to erect some store identification signs. Be sure to get the lettering large enough, and the signs high enough so that oncoming traffic can see them easily for a considerable distance.

4. Outdoor display stimulates more buying on the part of regulars.

Suppose, for example, that John Jones has made up his mind to come to your farm supply store for some insecticide, or a washer for his sprayer. As he approaches your front door he must walk by a great deal of merchandise shown outdoors.

Maybe he sees one of those lawn sweepers, and he thinks that with it perhaps he could handle the leaf raking job much easier. He may even stop and inspect it; then he walks into your store and asks the price of it. You may make a sale amounting to $35 or more, and the prospect may say, "I guess I'd better buy my lawn seed now and some fertilizer. Fall is almost here and I want to reseed some bare spots. Oh, yes, I also want a washer for my sprayer . . . "

The regular customer, as he approaches your front door must make his way through a lane on which merchandise is displayed, both outside and inside the store, before he reaches you or your employe at the wrap counter. And many merchandising experts say that the way to sell more goods is to expose it to the eyes of the customer.

It has been my privilege during the past year and a half to visit many farm supply dealers in the East, Northeast, Atlantic Coast, and the South. I have been impressed by one fact. This is that dealers in those areas are beginning to make excellent use of outdoor display. They are much more cognizant of this merchandising factor than are farm supply dealers in the Middle West. Practically all of the farm supply dealers with whom I talked were quite enthusiastic about the increase in sales that they are experiencing through better outdoor as well as in-store displays.

"We had to do it or get out of business," one dealer said. "Other stores were running away with the garden tractor, insecticide, power mower, garden hose, white picket fence, garden tool and related sales. We discovered that it was a mistake on our part to think that just because we had more fertilizer than anyone else in the area, that we would automatically have first chance at insecticide, sprayer and farm and garden supply items.

"After all, fertilizer is only one of the many items that contribute toward better farm crops, garden crops and fine lawns. So we stocked the other items and began merchandising them heavily, including outdoor display. Now, we are keeping pace with our most active competitors."

Now here are some ways and means of making outdoor displays contribute to general store policies of efficiency, low labor costs and greater net profit.

It is apparent to any farm supply retailer that the best arrangement for outdoor display of merchandise will have to conform, more or less, to the space the retailer has available. So the first thing to do is to study the space you have available, whether it be in front of your entrance, alongside the store, in an adjacent lot or in a front parking area.

Following are some points to consider in your outdoor display program:

1. Time and labor costs in bringing merchandise outdoors for display every day.

Let no dealer kid himself. It takes time and labor to bring merchandise outdoors. Many a dealer contemplating such daily chores may well think, "Is it worth the candle?" Whether it is or not, each dealer will have to find out for himself. But make no mistake—the enthusiasm, the determination, the alertness with which you tackle this business building program, will have a great deal to do with its success. Results will vary with the individual dealer.

I have talked with many dealers about the time and labor involved in bringing merchandise in and out of the store every day for outdoor showing. So far as I can estimate the average amount of time used is 15 minutes in the morning and 15 minutes at night. Some dealers used a little more time, but the better organized stores got the task accomplished in one half hour per day. So you can use that figure for your own project and either subtract or add 10 to 15 minutes, depending upon the efficiency of your plan.

2. Keep it orderly. The first thing the dealer must do to have effective outdoor display is to keep the entire outdoor display area looking orderly. Merchandise needs to be placed strategically according to size, color, seasonal appeal and harmony with the store front and window backgrounds. If you have window displays, the merchandise should not be piled so high as to shut off view of the window areas.

Neither should outdoor shown merchandise block approach to the store entrance. Avoid the "junky, mass display" effect. Remember, you may have five to ten different items to show, some in lots of five or more. You want each line to have a specific appeal. Orderliness appeals to customers' eyes. This means the outdoor displays should be straightened many times daily after goods have been handled, etc. by customers.

3. Use display racks. Make the outdoor display look, as much as possible, like a part of your store interior brought outdoors. I notice in my travels that many farm supply stores which use outdoor displays have put display units on wheels. This means that the entire display on wheels can be made up in the store and then rolled or pushed outdoors by one or two employees.

Where the store has a warehouse driveway out on a cement sidewalk, or a ramp from the store, this simplifies taking displays outdoors and bringing them indoors at night. If you haven't any such access to outdoor display areas, you may have to leave your empty display units on wheels outdoors at night, and then carry or haul the merchandise out in the morning and put it on the racks on wheels.

Most of the display racks which I have seen outdoors are constructed of one inch lumber, some with 2 by 4 frames, especially where bags of fertilizer or feed are shown. Some of them are five feet long and about three feet wide. Some have two step shelves, others have three. Usually the lumber is painted light green or dark.

On a well braced display rack on wheels, measuring 3 ft. wide, 5 ft. long and 3 to 4 ft. high, you can have 2 step-up shelves, about 18 inches deep each. On each shelf you can display about 4 full size sacks of feed or fertilizer. You made wish to put a 3 inch piece of edging on each shelf so that end sacks do not fall off the unit when being pushed in and out of the store.

Garden tool racks on wheels. This type of unit, as I have seen it, is constructed differently. Usually it is 3 ft. wide and 4 ft. long and about 5 feet high. There may be holes drilled in the bottom and in the top covering pieces so that hoes, rakes and other handled merchandise can be anchored in them, and pulled out easily. Some racks have heavy wire across the top, so that handles can be thrust through the squares into similar squares in wire stretched across the bottom.

Whatever you do, do not display hoes, rakes and other handled objects against an outside store wall. Someone is sure to step on a rake and get a black eye or some other injury, or someone is likely to knock down one rake, which in falling will knock down four or five more.

Items such as garden tractors and power mowers are best shown close to the store wall. Their colors are usually bright enough to attract attention. Of course, if you have a patch of green lawn in front of your store, then you will want to place some mowers and garden tractors on it, for this will be a natural setting. And for garden tractors if you have a little strip of land on the premises where customers can try out those tractors, it will help to sell them.

In the East I came across a feed and fertilizer firm about 100 feet back from the highway, but I stopped my car just short of the entrance from the road to the store. I saw as lovely a display of garden and lawn items on a real green strip of lawn, as one could see anywhere.

There were two wheel barrows, each with a large bag of garden fertilizer propped up in it; one lawn cart, with about five packages of lawn seed in it; two power mowers on the grass, one garden tractor, and a low white picket fence around the back of the display. From a rust colored post protruded an artistic sign which gave the name of the store.

The owner told me this outdoor display spot was one of the best ideas he had used, for it brought extra sales. So—if you are located some distance from the highway—you may be able to use an idea like this.

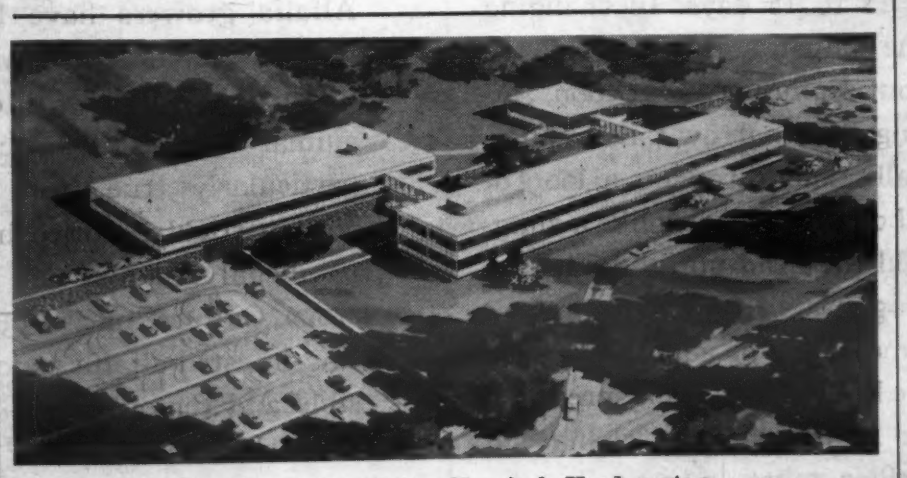
4. Signs on outdoor displays. Point of sale signs, well lettered and properly placed, will add much to your merchandise appeal. Fasten them securely, however, so they do not look carelessly placed. Make them as neat and orderly as the display itself.

The good merchandiser will avoid the poorly painted store sign. He will know that a professional job on signs will enhance the value of the merchandise shown. I have seen too many sloppily made signs on outdoor displayed merchandise in many states. This is one part of the program which could be improved.

5. Payment plan. If the farm supply dealer has any time payment plan for the purchase of power mowers, garden tractors, sprayers and other equipment, a sign to this effect should be placed with the merchandise when shown outdoors. This is information many a prospective customer wants to know and it definitely influences "impulse" buying.

6. Photos of displays. If you really want to know how your outdoor displays look, try taking a photo on some bright, sunny day. Photos somehow reveal a scene just as it is and you can study it and try to improve the merchandise layout. It may pay you to take a color picture, too, so you get the effect of color on sales and on attractive display.

And, if you are traveling about, take photos of outdoor displays of other merchants—whatever their lines—so that you can have a handy file of such photos for study when you try to improve your own program.



Drawing of New Geigy Chemicals Headquarters

Geigy Chemical Moves Headquarters To Ardsley, N.Y.

NEW YORK — Geigy Chemical Corp. has announced the moving of its headquarters from New York City to Saw Mill River Road, Ardsley, N.Y. The corporation's agricultural chemicals, industrial chemicals and pharmaceuticals divisions opened for business in Ardsley the first week of August. The dyestuffs division, coloristic and chemical research laboratories will move to Ardsley in September.

Geigy is a subsidiary of the Swiss chemical firm, J. R. Geigy, S.A., which will celebrate its 200th anniversary in 1958.

Geigy's new headquarters include air-conditioned administration and cafeteria buildings, as well as a laboratory and service building, all of reinforced concrete with exteriors of insulated white porcelain enamel panels. Interior design is on a modular basis, with an eye to both functional needs and attractive working conditions. Administrative facilities have been planned so as to permit integration with application, research and development laboratories.

President of the company is W. F. Zipse of New Gardens. The executive vice president is C. A. Suter of Rye, N.Y.

Geigy's new buildings at Ardsley were designed by the architectural firm of Skidmore, Owings & Merrill and constructed by Vermilya-Brown, Inc. Construction of an additional laboratory for research in the pharmaceutical field will be commenced in the near future.

BUG OF THE WEEK

Mr. Dealer—Cut out this page for your bulletin board

Alfalfa Caterpillar

How to Identify

Full-grown worms are about 1½ inches in length, and dark green in color. A distinguishing characteristic beyond this, is a fine white stripe on each side of the body. A very fine red line lies within the white line area.

Habits of the Caterpillar

This insect has an interesting life history. After hatching from eggs, the worm attains adulthood in from 12 to 15 days. In changing to the pupal stage, they do so without spinning a cocoon, attaching their narrow tails to alfalfa stalks and throwing a loop of silk about their bodies like a sling, to hold the head upright. The pupal stage lasts about a week before the emergence of adult butterflies which attain a wingspread of about 2 inches. This change to butterflies takes place in the spring. The flying creature is rather beautiful, with the entire under portion of the wings a sulfur-yellow in color, and the upper side bordered with black. It is the butterflies that lay eggs, usually in quantities of from 200 to 500. These are laid on the underside of alfalfa leaves.

Damage Done by Caterpillars

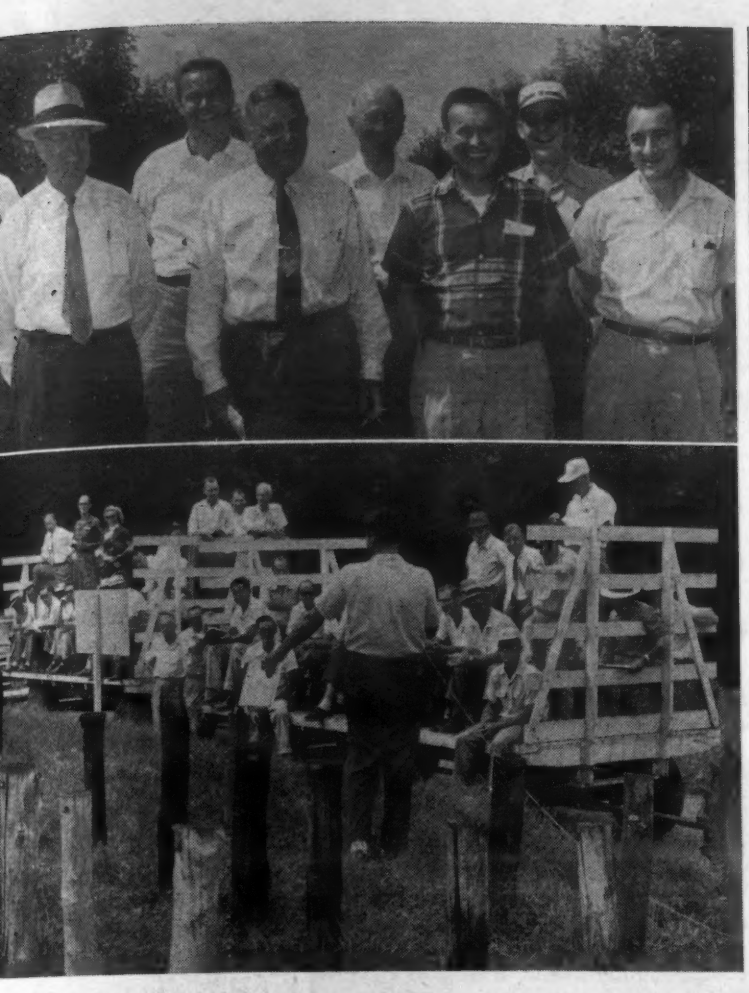
These insects feed mostly on alfalfa, although they sometimes are found on clover or other legumes. The insect is found in practically all parts of the U.S., with exception of the southeastern portion.

Control Measures

Alfalfa growers have long been warned about excessive use of pesticides on crops intended for animal forage. This caution is particularly true from now on, with particular notice being paid to illegal residues on harvested crops. Cultural means include cutting infested alfalfa as low as possible and removing the hay from the field. This cuts off the food supply of the young caterpillars and exposes them to their insect enemies which are always present. Exposure to the heat or to the direct rays of the sun are also lethal to many of the worms.

Drawing of Alfalfa Caterpillar furnished by artist, Marvin Frost, Jr.

Previous "Bug of the Week" features have been reprinted in attractive 24-page booklet, priced at 25¢ single copies; reduced rates in quantities. Write Croplife Reprint Dept., Box 67, Minneapolis 1, Minn.



PESTICIDE CONFERENCE—Officials of the Ohio Pesticide In-sent at the recent Wooster conference are shown in the top photo. to right they are M. G. Farleman of Standard Oil, president; J. on, Ohio Agricultural Experiment Station, secretary; Lyle Goleman, e University, director; C. R. Neiswander, Ohio Agricultural Experi-ion, director; V. H. Davis, Ohio Farm Bureau, treasurer; J. J. Coyle, & Haas, director; D. W. Zimmerman, W. F. Weigley Co., director; Brenneman, Diamond Fertilizer Co., director. Below, a fence post d" was one of the tour stops at the conference.

OHIO PESTICIDE INSTITUTE

(Continued from page 1)

ark. So far, this type of on is giving good protec-reported.

ller also showed the group -T could rid a woodlot of undergrowth of dogwood ughly saturating the root trunk to a height of 18

emphasis was placed on the hemicals in the control of turfgrass diseases and in-ing the first day of the OPI Specialist R. R. Davis of on's agronomy department erse weather this year has itical conditions on lawns.

vis said PMA, either wet or done a good job of killing on test plots. Both meth-been used as post-emergence ts about July 10 and con-eekly for 5 weeks. He point-hat crabgrass had been un-difficult to kill this year.

any instances station re-rs pointed out that unusual conditions in the past sum-d either altered research or else established factors de the tests difficult to in-One instance was the work ith vegetable fungicides, in plant pathologists Dr. J. Vilson of the station staff l that there was little of ding nature to show the ests.

pressed hope, however, that searchers would become in-in studies on plant adhesion materials and the effect of ize. He said there is much rned in this field.

the past year, the station eived a number of reports hio growers that a potato t was killing many of their n his report to OPI on prog-controlling the disease, Dr. tated that although he had isolated the bacteria causing stalk rot, he had not yet found a chemical successful in combating it. A similar condition exists with tomato anthracnose, he said.

Another situation in which freak weather may have altered research findings was the study of fireblight of apples and pears headed by plant pathologist Dr. Frank Winter of the station staff. He reported secondary spread of fireblight into blocks of trees where the disease was not wanted. He uses a special orchard for these tests so that a fairly accurate control is possible. Heavy rains and high winds, he said, apparently contributed to the secondary spread.

At the present time, Dr. Winter states that a 100 ppm streptomycin spray was effective in controlling fireblight. He also varied the experiment to test the effectiveness of additives, also to determine how prevailing temperature might change the degree of control. None of the additives used made any significant change. This may indicate, Dr. Winter declared, that such chemicals are incompatible with a streptomycin spray.

Dr. Winter reported having tried applying the streptomycin spray at temperatures below and above 60 degrees and noted no difference in effectiveness, although workers in at least one other state have reported better control at lower temperatures.

J. P. Sleesman, entomologist, showed OPI members two plots of vegetables where outstanding results on insect control were apparent. One was with lima beans; the other, potatoes. A soil application of a systemic, Thimet, at 3 lb. an acre gave good control of leafhoppers on potatoes. Various granular insecticides added to the soil or side-dressed along the plant row resulted in nearly 100% control of bean beetles. Dr. Sleesman said he noted no favorable systemic action by treating cabbage plots with granular insecticides, however.

E. K. Alban of Ohio State University took OPI guests on a tour of horticulture plots where he had been testing various herbicides. In potato plots, most all pre-emergence herbicides gave good results, he stated.

In selling fruit-thinning materials, dealers should urge growers to use caution, station horticulturist Carl Ellenwood stated. Weather is always a strong factor and in some cases it is possible to overthin with chemicals. Moreover, some chemicals, if allowed to drift, may discolor painted buildings, Mr. Ellenwood said. Many city residents, using thinning chemicals to convert fruit trees to shade trees, usually are not aware of this hazard, he said.

Mr. Ellenwood had previously treated all but one limb of a Johnny Appleseed tree to show how the thinning material may be used selectively. The tree is one of several grown in station orchards merely for demonstration purposes.

C. R. Cutright, entomologist, conducted visitors on a tour of orchards where he is testing a wide variety of chemicals for control of apple insects. Among the new materials, he said, there are many showing promise. He is still seeking a one-spray material that will give early season control of mites and aphids without using oil. One factor that causes trouble for both manufacturer and dealer is the seasonal variation in degree of control which some chemicals give. Resistance is occasionally involved, Cutright said.

C. R. Neiswander, associate chairman of the station's entomology department, was general chairman of the 1956 Ohio Pesticide Institute. He is also a member of the group's board of directors.

M. G. Farleman, OPI president, announced that the winter meeting of the organization will be held Nov. 19-20 at the Neil House in Columbus.

Naugatuck Agricultural Chemicals

product	application	advantages
Aramite miticide	controls mites on citrus and deciduous fruits, cotton, other row crops, ornamentals and vine crops. Also controls poultry mites.	non-hazardous, low cost per acre, highly compatible, harmless to natural predators.
Spergon® seed protectant	controls soil fungi and storage insects (with DDT) on most crop and vegetable seeds.	effective at economical dosages, safe on seed, easy to use, compatible with most other chemicals including legume inoculants, low cost.
Phygon®-XL fungicide	controls fungus diseases on fruit trees and row crops.	extremely low cost per acre, easy to apply, compatible, harmless to pollen and bees.
MH growth retardant and herbicide	inhibits grass growth: controls wild onions and quack grass; prevents tobacco suckering. Preharvest application prevents destructive storage sprouting of edible onions and potatoes.	extremely safe on plants; easy to apply: in wild onion control, one spray lasts up to 3 years.
Alanap® pre-emergence weed killer	pre-emergence weed-control for vine, row crops; asparagus and nursery stock. Available commercially for use on vine crops.	safe on recommended crops, relatively non-toxic, easy to apply, favorably priced.
Duraset*-20W flower and fruit-setting compound	a fruit-setting chemical for lima beans, legumes, peppers and various tree fruits.	low dosage per acre, easily applied as a foliage spray.

*U. S. PAT. 2,556,665

US RUBBER **United States Rubber**
Naugatuck Chemical Division
Naugatuck, Connecticut

WORLD REPORT

By GEORGE E. SWARBRECK
Croplife Canadian and Overseas Editor

The development of hormones as insecticides was discussed at the 10th International Congress of Entomology at McGill University, Montreal. Dr. C. Williams of Harvard says that it is now possible to isolate the juvenile hormone in insects which means, in effect, controlling their growth.

The existence of the hormone has been known for more than 20 years, but only recently has it been extracted from the abdomen of a silkworm and used for experiments. In the early stages of development it was produced naturally in the insect, but when introduced artificially at any stage it immediately stopped growth and the insect would not advance beyond its "youth" or "middle age" as long as it took in the hormone.

In discussing the growth hormone Dr. Karlson of Berlin thought that if it could be synthesized and produced in quantity it could be used to accelerate insect growth so that they could quickly arrive at a stage at which adverse climatic conditions would kill them.

Dr. Williams declared that his juvenile hormone had possibilities as an insecticide, for when it was applied to the skin of pupa it produced a mixture of pupa and adult, which soon died. The great advantage of using hormones as insecticides was that it was unlikely that insects would develop a resistance such as that they are now showing to many insecticides.

Resistance Factors

The resistance of many insects to insecticides occupied the time of the entomologists at Montreal. It was reported that a strain of Korean louse has developed resistance to DDT. Dr. Cornelius B. Philip, assistant director of Rocky Mountain laboratory, Hamilton, Mont., reporting on the louse's comeback said: "We thought we had him licked, but he has developed a resistance to this potent insecticide."

Aerial Combat

The war against insects goes on in the air as well as on the ground. Scientists at England's Rothamsted agricultural experimental station are "vacuum cleaning" the air 1,000 ft. above the ground to collect specimens for their work in the destruction of insect pests. They have made a trap that consists of a suction fan with a conical net suspended from its intake. The trap is hung from a barrage balloon at various heights. So that the densities of insect swarms at different times of day may be known, catches in predetermined periods are kept separate from each other by discs actuated by a timing mechanism.

U.S. Aids Competition

The International Cooperation Administration is using U.S. aid dollars to build up the Taiwan feritlizer industry so that the dependence upon imports, many from the U.S., can be reduced or even completely eliminated.

The expansion of an ammonium sulfate plant, begun in 1952, has now been completed and operations are underway. A nitrochalk plant is expected to start producing later this year. The largest project is a urea plant and this will be in operation by the middle of next year.

By 1958, the government anticipates that 75% of the country's fertilizer requirements will be met by local production. In 1955, fertilizer output came to 168,000 tons, mainly calcium cyanamide and superphosphate. This year the target is 197,000 tons.

Rhodesian Plant

A new superphosphate and fertilizer plant is being built near Salisbury, Southern Rhodesia. Included will be facilities for the production of sulfuric acid from local pyrites. Phosphate rock will be imported from Morocco.

The plant's annual capacity is expected to be 70,000 tons of sulfuric acid and 150,000 tons of superphosphate.

The superphosphate, it is proposed, will be used mainly in the production of mixed fertilizers, the necessary nitrogenous and potash materials being imported. Production will start towards the end of next year and already the sponsors are suggesting that they will have a surplus for export to South Africa.

Brazilian Progress

Improved methods of coffee cultivation to help Brazil reduce the cost of producing coffee and thus increase dollar exchange have been reported by Dr. Elif Miller, chief agriculturalist for the Chemicals International Division of Olin Mathieson Chemical Corp.

Dr. Miller has just completed a survey of soil conditions in Brazil and he points to the use of high analysis fertilizers, new irrigation methods and modern antibiotics as being the secrets of the progress now reported.

Recommending the development of the red soil areas in the northern part of the state of Sao Paulo, Dr. Miller said that high yields can be obtained if the soil is properly treated with modern chemicals.

Members of the Sociedada Rural de Sao Paulo say that phosphate is the biggest deficiency encountered in coffee soil. Excellent results are being achieved, however, with a special formula of high analysis fertilizer containing nitrogen, phosphate and potash, 10-20-20, supplied by North American producers. Growers in the Sao Paulo-Parana region apply the formula twice yearly to their crops with excellent response.

Anti-Evaporation Chemical Under Study

AUSTIN, TEXAS — The biggest problem in holding water in Southwestern reservoirs is the high evaporation rate, which averages about six feet per year. Now scientists hope to reduce this and add to the water supply by spreading a very thin film on surface of the water.

The Southwest Research Institute is conducting tests on three small lakes, using a chemical called hexadecanol. It is a fatty substance used in cosmetics and has been under tests in Australia since 1952, where evaporation was reduced by 45%. The Southwest tests were begun last spring. The effects of wind, dust and floating objects are also being studied.

Drawing of U. S. Borax & Chemical Corp. Research Laboratory

U.S. Borax & Chemical to Build New Laboratory

LOS ANGELES—An orange grove in Anaheim, Cal. has been selected as the site for a new research laboratory for U.S. Borax & Chemical Corp. Designed by Albert C. Martin and Associates, architects and engineers, the facility will provide working conditions conveniently near a variety of desirable residential areas.

Selection of a site away from the city, integration of existing landscaping with the physical structure of the building and inclusion of interior courts and planting areas are all part of the basic plan to produce the best possible "climate" for scientific research.

Future requirements, which were also a design consideration, have been provided for through the division of the building into four semi-separate segments, each housing a specific function. Storage area and utilities are located in the center with laboratory wings on either side and the administration wing connecting these elements. Thus, it will be possible for each wing to be expanded separately as the need arises.

The laboratory will be fu equipped for all phases of chemi research. In addition to numero standard laboratories, special fac ties will be provided as follows: d tillation room, instrument labo tory, heavy experimental equipme room, and a greenhouse for agric tural investigations. A library w be centrally located for convenie use by the professional staff.

The laboratory will conduct re search for all three operating di visions of U.S. Borax & Chemica Corp. These divisions are th Pacific Coast Borax Co. Divisio United States Potash Co. Divisio and 20 Mule Team Products Di vision.

Offices will be provided for exec tive staff and clerical personnel. attractive lobby and reception ar will lead to the interior court. spacious lunchroom will also ser as a large lecture room and cent for the showing of motion picture

Occupying an area of some 30,0 square feet, the building will be reinforced concrete constructio Construction is scheduled to begin September with completion expect late in April, 1957, at an estima cost of $850,000. Haas and Hayn Frandsen are the general contra tors.

United Chemical Co. Changes Name To United-Heckathorn

RICHMOND, CAL. — The United Chemical Co., 600 S. 4th St. here, and its various subsidiaries, has changed the over-all name of the firm to United-Heckathorn.

Founded originally in 1947 by Eugene Heckathorn as Heckathorn and Co., there was also the parent firm of United Chemical; the Growers Service Company of Soledad, which did the application work, and the United Fertilizer Co., as sales organization handling the "United" brand.

Eugene Heckathorn continues as president of the chemical producing and sales firm, and has created another subsidiary known as Skyspray. The new company performs aerial application work for large acreages, working principally on bid for state and federal governments. Skyspray recently obtained the spray operation in Florida for control of the Mediterranean fruit flv.

E. G. Trimpey, operations manager for Heckathorn since the company was founded nine years ago, has been named general manager of Skyspray. In addition to the Florida assignment, the company has also made applications in Montana, New Mexico and California.

Bob Cardinale, a graduate this year of the School of Business Administration of Montana State University, has been employed by United-Heckathorn.

DAVID DUNAVAN DIES

CLEMSON — David Dunavan, 61, associate professor of entomology and zoology and a member of the Clemson College faculty since 1926, died in Montreal, Canada, Aug. 21 of a heart attack.

Dr. William S. Emerson

RESEARCH MANAGER — Dr. W liam S. Emerson has joined Ame can Potash & Chemical Corp. manager of research at the co pany's Whittier, Cal. research labo atory, according to an announceme by Joseph C. Schumacher, AP&C vice president in charge of researc Dr. Emerson formerly was with Mo santo Chemical Co. at St. Louis, M from 1941 until he went with Ame can Potash & Chemical Corp. F the past two years he had been a sistant development director f Monsanto. He graduated from Dar mouth College at Hanover, N.H., 1934 with a bachelor of arts degr and then studied at Massachuse Institute of Technology, receiving h Ph.D. in 1937. He was an instruct at the University of Illinois, Champaign-Urbana, from 1938-19

New Members ...dded to Board of ...rectors of CFA

...N MARINO, CAL.—The board ...irectors of the California Ferti... Assn. has been brought to full ...ngth by its recent action of elect... three persons to fill vacancies ...h have existed.

...e three new board members are ...ell W. Berry, the Best Fertilizers ... Oakland; Arthur W. Mohr, Cali... ...ia Spray-Chemical Corp., Rich... ...d, and John N. Williams, Gen... ... Fertilizer & Supply Co., Chula ...a.

...ther members of the board are ...n C. Anderson, the Agriform Co., ...ersfield; Jack Baker, Bandini ...ilizer Co., Los Angeles; Fred R. ...ant, Brown & Bryant, Shafter; ...il A. Frizzell, the Triangle Co., ...nas; Howard H. Hawkins, Golden ...e Plant Food Co., Glendora; Wil... ...n G. Hewitt, Pacific Guano Co., ...keley; B. H. Jones, Sunland In... ...tries, Inc., Fresno; William E. ...der, Wilbur-Ellis Co., Los An...s, and M. M. Stockman, the ...ntain Copper Co., San Francisco. ...ssociation officers are Mr. Snyder, ...ident; Mr. Baker, vice president; ... Hawkins, secretary; Mr. Hewitt, ...surer, and Sidney H. Bierly, ...cutive secretary and manager.

...igation Helps ...rmers Beat Drouth ... Massachusetts

...OSTON—Massachusetts farmers, ...eriencing the driest season ever ...n here, recall that last year they ...re in the midst of a flood caused ... Hurricane Diane.

...t would take another Diane to ...urate the dry, parched soil of ...theastern Massachusetts. But the ...mers neither want nor need mois... ...e that bad.

...Farming, particularly truck farm..., in Massachusetts, now depends ... the irrigation pipe rather than ...uds for moisture. Anthony Sebas... ...n of Happy Valley Farm on Rt. 62 ... Bedford has been squirting 1½ ...llions gallons of water daily on ...ns, spinach, potatoes and 65 acres ... corn, cabbages and tomatoes.

"So far as my farm is concerned, ...ere has been no rain since early ...ne," he said. "The thundershow...s mean nothing to crops." Mr. ...ebastian has a water system that ...ould serve a small village. He ...erates his own pumps.

...Tom Napoli of Idylwilde Farm on ... 2A in Lexington, Mass., has five ...es of his 20-acre vegetable farm ...der irrigation. He estimated that ... has spent $50 an acre for water on ... five irrigated acres.

...At Cherry Hill Farm in Danvers, ...ss., Ralph Evans, farm manager, ...d: "We have a 20-acre clover field ... a drained marsh. For the first time ... memory the laterals under that ...ld are bone dry." Cherry Hill has ... head of Holstein cattle that nor...ally grazes through the summer on ... acres of the farm's 450 acres. But ...is year the cattle have been on ...led hay for more than a week. "It's ...en at least seven weeks since a rain ...lped pastures," Mr. Evans said.

...Much of the corn crop has been lost ...d apples are very slow in filling out ...s year because of the drouth, farm... ...s reported. Squash and lettuce ...ops, chicory, escarole, radishes and ...matoes have been lost because of ...e dry spell.

KANSAS FIELD DAY

...MANHATTAN, KANSAS—Six ex...rimental fields and many test plots ...ll be open to the public Sept. 27 ... the annual fall Farm Field Day ...onsored by Kansas State College ... its Ashland bottoms research ...rm, southwest of Manhattan.

Plans Set For Meeting of Top State Farm Officials

SAN FRANCISCO — Problems of administering the agricultural regulatory rules of the nation and its individual states and territories will be studied when the National Association of Commissioners, Secretaries and Directors of Agriculture meets in San Francisco Sept. 17-22.

The association comprises the top agricultural officials of the 48 states, Hawaii, Alaska and Puerto Rico. It is holding its 38th annual convention on the Pacific Coast for the first time.

The program for the six day meetings as announced here by W. C. Jacobsen, director of the California State Department of Agriculture and president of the association, covers a wide range of topics. Included will be technical problems of interstate cooperation, marketing research, animal and plant industry regulatory programs, pesticide regulation and research and soil bank legislation.

Of special interest will be a panel discussion on improving public relations and press relationships of agencies concerned with agricultural regulatory and service functions. The panel will include agricultural editors from press, radio and television services and public relations counselors.

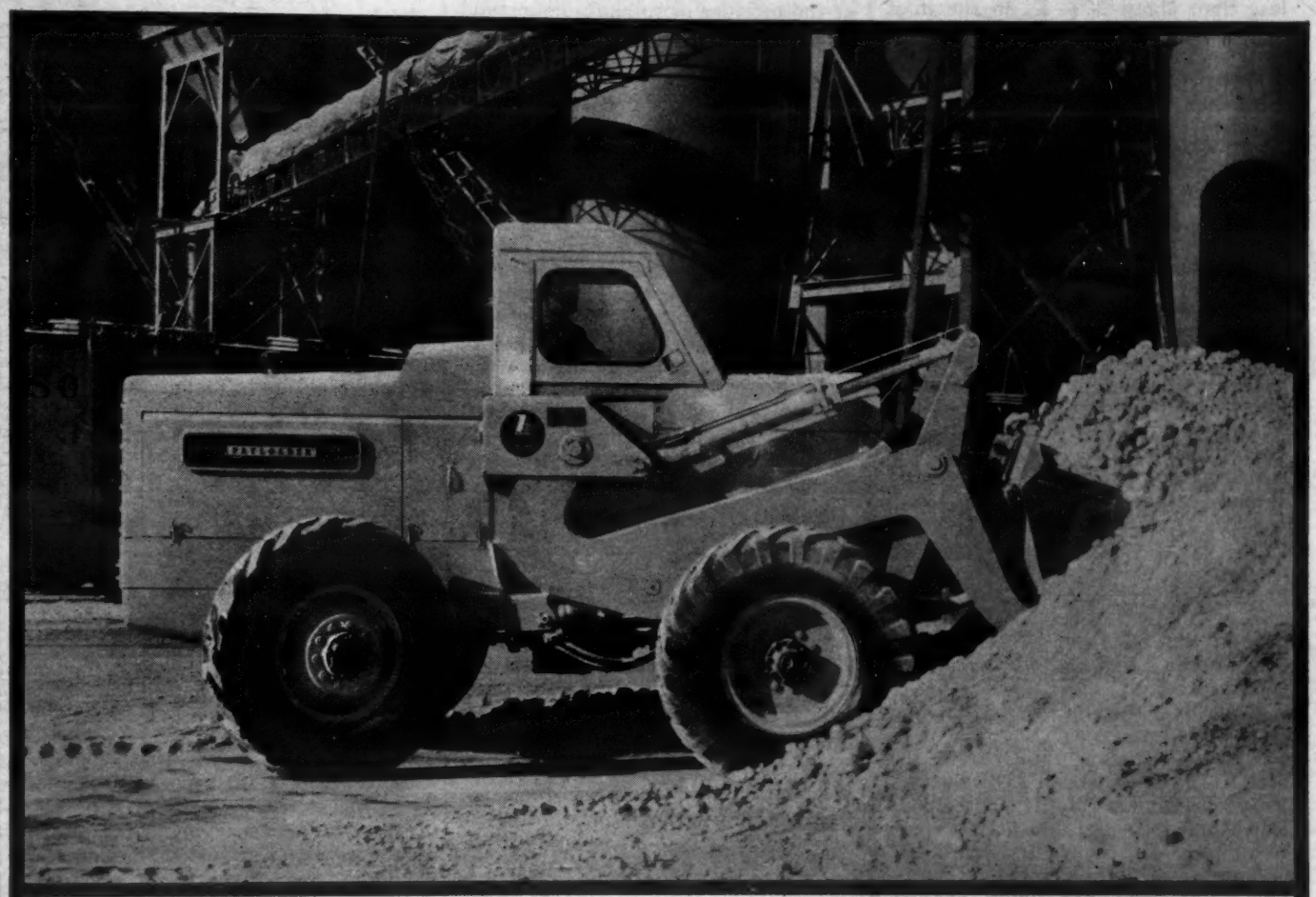
Ezra Taft Benson, secretary of agriculture, will head the cast of speakers which will include Gov. Goodwin J. Knight of California, Mayor George J. Christopher of San Francisco, J. Howard Doggett, director of the Federal Soil Bank program; and Dr. Roy W. Lennartson, deputy administrator for the Agricultural Marketing Service of the U.S. Department of Agriculture.

A special report on eradication measures being taken against the Mediterranean fruit fly recently found in Florida, will be given by Ed L. Ayres, commissioner, Florida State Plant Board.

The convention will feature two field trips—one to the USDA Western Utilization Research Laboratory, Albany, Cal., on Sept. 20, and another to the farmlands of California's interior valleys on Sept. 22.

New Toxicology Laboratory Opens

CHICAGO—A new $150,000 industrial toxicology laboratory has been completed by Industrial Bio-Test Laboratories, Inc., in Northbrook, Ill., a Chicago suburb, Dr. Joseph C. Calandra, Bio-Test president, has announced. The air-conditioned laboratories cover 8,000 square feet. A greenhouse for the study of agricultural chemicals and residue will be added to the facilities.



2,048 Tons per Day

Chemical and fertilizer plants far and wide report exceptional satisfaction with the performance of the new "PAYLOADER" models. They not only handle more tonnage than earlier "PAYLOADER" machines, but are way ahead of other front-end loaders in design and the features which make them MORE PRODUCTIVE.

Whether you have a large-tonnage application like the one pictured*, a boxcar unloading need, or applications in between — indoors or outdoors — there is a "PAYLOADER" size to fit your requirements. And there is a nearby Hough Distributor with complete sales-service facilities ready to work with you.

** A 4-wheel-drive "PAYLOADER" with 2 cu. yd. bucket loading trucks with 256 tons of sulphur per hour.*

Dig More —Powerful 40° bucket tip-back at ground level gets heaped loads quickly and easily with less spillage loss.

Carry More —Low, close load-carry position, plus hydraulic load shock absorber permit carrying more at higher speeds.

Deliver More —Since they get more to begin with and can carry more — at higher speeds — they deliver more tonnage, at lower cost.

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☐ Send data on Model HA (1½ cu. ft.)
☐ Send data on Model HAH (1 cu. yd.)
☐ On larger models up to 2¼ cu. yd.

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Title_____
Company_____
Street_____
City_____
State_____

PAYLOADER®
MANUFACTURED BY
THE FRANK G. HOUGH CO. LIBERTYVILLE, ILL.
SUBSIDIARY—INTERNATIONAL HARVESTER COMPANY

Industry Patents and Trademarks

2,758,913. Process for Sulfur Recovery. Patent issued Aug. 14, 1956, to Frank G. Pearce, Tulsa, Okla, assignor to Stanolind Oil & Gas Co., Tulsa. In a process for recovering free sulfur from hydrogen sulfide-containing gases by means of direct oxidation of hydrogen sulfide with a gas containing up to about 25 volume per cent hydrogen sulfide, the steps which comprise mixing said gas with a gas containing free oxygen, said oxygen being present in an amount insufficient to react with all of the hydrogen sulfide in said gases, heating the resulting mixture up to a temperature of from about 300° to about 500° F. and thereafter contacting said mixture with a fixed bed of catalyst capable of promoting the oxidation of hydrogen sulfide to free sulfur wherein the temperature variation across said bed ranges from not less than about 300° F. on the inlet side to not more than about 1,200° F. on the exit side of said bed, withdrawing product gas from said catalyst bed at a temperature in excess of about 980° F. but below about 1,200° F., thereafter mixing a sufficient quantity of a gas containing free oxygen to react with the remaining unconverted hydrogen sulfide issuing from said catalyst bed to produce free sulfur, next cooling the resulting gaseous mixture to a temperature ranging from slightly above the dew point of the sulfur vapors contained therein up to about 625° F., conducting the cooled gaseous mixture through a second bed of catalyst for the oxidation of hydrogen sulfide to free sulfur, the temperature variation across said second catalyst bed ranging from not less than slightly above the dew point of the aforesaid sulfur vapors on the inlet side to not more than about 1,200° F. on the exit side of said second catalyst bed, thereafter cooling the resulting sulfur-containing vapors, and withdrawing the cooled product.

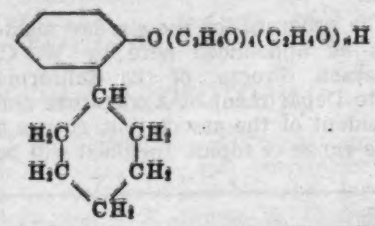
2,759,762. Movable Spraying Machines. Patent issued Aug. 21, 1956, to August Kostka, La Grange, Ill., and Georges Kostka, Les Ancizes, France, assignors of fifty percent to said August Kostka and fifty percent to John Basic, Downers Grove, Ill. A spraying tool including a nozzle having at least one liquid channel and one air channel whose axes intersect, a Venturi member following the point of intersection of the axes of said liquid channel and said air channel, said Venturi member terminating in a dish-shaped plate having at its outer circumference an upwardly bent rim and near said rim a number of holes, said holes being adapted in cooperation with said rim to form during the operation of the nozzle an air screen preventing dripping down of spraying liquid from said plate.

2,759,768. Device for Atomizing Pressurized Gas or Liquid Insecticides. Patent issued Aug. 21, 1956, to Shigeshi Sato, Nakano-ku, Tokyo-to, Japan. A device for atomizing pressurized gas or liquid insecticide comprising a container having a top opening and being charged with said insecticide, an atomizing hollow apparatus secured above said top opening and adapted to contain a solvent, a soluble plate so positioned as to shut off communication between said apparatus and the interior of said container and being so constituted as to be weakened by said solvent, said soluble plate being provided with a lining membrane offering greater resistance to said solvent than said plate and being pierceable.

2,759,795. Defluorination of Phosphatic Materials. Patent issued Aug. 21, 1956, to James R. Archer, East Point, Ga., assignor to International Minerals & Chemical Corp. A process for defluorinating acid phosphate which comprises separating a solution having a CaO/P_2O_5 mole ratio in the range between about 0.1 and about 0.6 from the solid calcium sulfate of a slurry prepared by leaching a sulfuric acid-phosphate rock mix, the phosphate rock containing chemically bound fluorine, with a liquid selected from the group consisting of water and an aqueous solution comprising essentially water, monocalcium phosphate and free phosphoric acid, and heating said solution at a temperature between about 100° C. and about 200° C. to evolve fluorine constituents.

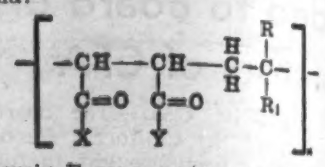
2,759,796. Production of Sulphate of Ammonia. Patent issued Aug. 21, 1956, to Carl Otto, Manhasset, N.Y. In producing ammonium sulphate by continuously spraying saturated ammonium sulphate liquor having a sulphuric acid content and an apparent entrained ammonium sulphate crystal content of not less than about 20% of the mixture of sulphate liquor and entrained crystals into a stream of gas having a small ammonia content as the gas passes through a scrubbing space within an enclosure having a gas inlet and a gas outlet displaced from said inlet, the improved method which includes the initial step of spraying into a small initial section of said space in proximity to said inlet a portion of said spray liquor large enough to substantially instantaneously convert a major portion of the ammonia content of the gas in said section into ammonium sulphate in liquor and crystalline form without supersaturating the liquor sprayed into said section more than about one percent, and includes the second step of spraying into the larger section of said space between said initial section and said outlet into which the gas passes from said initial section, a portion of said spray liquor large enough to convert into ammonium sulphate in liquor and crystalline form substantially all of the ammonia content of the gas not so converted in said initial section.

2,759,867. Cyclohexyl-Phenol-Alkylene-Oxide Repellent and Method. Patent issued Aug. 21, 1956, to Vivian H. Melass, Lake Jackson, Tex., assignor to The Dow Chemical Co., Midland, Mich. A composition for repelling hornflies from cattle, which comprises as an essential repellent ingredient an ortho-cyclohexylphenol-alkylene oxide condensation product, having the formula



wherein n is an integer from 7 to 9 inclusive.

2,759,902. Soil Conditioning Agents. Patent issued Aug. 21, 1956, to Finn Claudi-Magnussen and Anthony James Martinelli, Easton, Pa., assignors to General Analine & Film Corp., New York. A composition for conditioning surface soils consisting of a dry mixture of a carrier selected from the class consisting of colloidal clay, bentonite, and aluminum silicate, 5 to 75 per cent by weight of at least one rosinous material of the group consisting of rosin, abietic acid, abietic acid dimer, maleic anhydride-abietic acid adduct, ammonium, triethanolamine, cyclohexylamine, alkali and alkali earth metal salts thereof, and 25 to 95 per cent by weight of copolymeric polyelectrolyte characterized by the following general formula:



wherein R represents a group selected from the class consisting of hydrogen and lower alkyl, R_1 represents a group selected from the class consisting of chlorine, hydroxyl, phenyl, lower alkoxy, and lower carbalkoxy, X represents a member selected from the class consisting of —ONa, —O—, —OH, ONH_4, and —OR wherein R represents a lower alkyl group; Y represents a member selected from the class consisting of —OH, —O—, —ONH_4, —NH_2, and —$OCa_{1/2}$, and n represents a number indicative of the extent of copolymerization as determined by specific viscosities which range from 0.4 to 10.0.

2,759,903. Resinous Fungicide. Patent issued Aug. 21, 1956, to Aaron Epstein and Marianne Falck, Atlanta, Ga., said Falck assignor to said Epstein. A fungicidally active fusible resinous product formed by reacting a polychlorinated carbocyclic compound containing at least 3 chlorine atoms, selected from the group consisting of polychlorinated carbocyclic hydrocarbons and polychlorinated carbocyclic hydrocarbon alkoxy ethers, said compound containing substituted chlorine which is evolved as hydrogen chloride by heating and a permanently fusible phenolaldehyde resin, a major proportion of said resin being heated with a minor proportion of said polychlorinated compound at a temperature exceeding the melting point of said resin and with the evolution of hydrogen chloride from said compound.

Industry Trade Marks

The following trade marks were published in the Official Gazette of the U.S. Patent Office in compliance with section 12 (a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. (See Rules 20.1 to 20.5.) As provided by Section 31 of the act a fee of $25 must accompany each notice of opposition.

Trade Marks described below were published in the Official Gazette dated Aug. 21, 1956.

Douglas, in capitals and lower case letters, for economic poisons in the nature of insecticides for fumigating grains, killing insects in the field, yard, garden and building interiors and on crops, livestock, and poultry, and for economic poisons in the nature of rodenticides and herbicides. Filed Nov. 28, 1955, by Douglas Chemical Co., Kansas City, Mo. First use Nov. 1, 1949.

Bruce, in capital letters, for insecticides. Filed Dec. 19, 1955, by E. L. Bruce Co., Memphis, Tenn. First use Nov. 1, 1928.

Corenco Liquid-Green, with the first word in outlined script letters and the lower two words in smaller script, for fertilizer. Filed Jan. 9, 1956, by Consolidated Rendering Co., Boston, Mass. First use, March 15, 1955.

Uni-Form, in hand-drawn letters with the letters "Uni" above the word "Form," for fertilizer. Filed April 9, 1956, by Lebanon Chemical Corp., Lebanon, Pa. First use Feb. 3, 1956.

Massachusetts Launches Control Project for Mosquitoes Bearing Sleeping Sickness

BOSTON—The State of Massachusetts has started saturation spraying of DDT to wipe out mosquitoes that are spreading an outbreak of horse sleeping sickness in parts of Massachusetts. Three planes are being used by the state reclamation board to attack mosquito breeding sites.

Spraying operations from the air and on the ground started Aug. 22 and were continuing in an all-out effort to wipe out mosquitoes carrying the usual fatal disease of encephalitis. The infection, carried by birds and mosquitoes and transmitted to humans and horses, has already claimed the lives of two infants and killed 10 horses in the southeastern part of the state.

Lewis Wells, Jr., of Scituate, superintendent of the South Shore Mosquito Control Project said two planes that took off early on the morning of Aug. 26, were forced down shortly after 9:30 by high winds. Ground crews in Weymouth continued working with hydraulic and mist equipment to spread DDT and oil mix, however.

In Quincy, Dr. Richard Ash, health commissioner, expressed concern over the dumping of wet fill from Boston's Southeast Expressway project into quarries and other sites in Quincy.

"The material these trucks are bringing in is wet mud, some of it containing hydrogen sulfide from sewage," Dr. Ash said. "By itself this is a health menace. In addition, the water in the material forms puddles after it is dumped, providing excellent places for mosquitoes to breed." Dr. Ash indicated that the city was working at cross purposes to be attempting to wipe out mosquitoes on the one hand and providing places where they can multiply at the same time.

Francis W. Gens of the Boston Health Department said helicopters were being used to spray city dumps and other areas where mosquitoes breed. He also disclosed that equipment of the Middlesex Mosquito Control Project was dusting both banks of the Charles River as far inland as Dover.

State owned planes concentrated in southeastern Massachusetts for the first two days spraying DDT solution over large swamps. The Metropolitan District Commission was conducting similar activities along both banks of the Neponset River.

The Assabet River headwaters in the Westboro-Northboro area came in for special spraying attention. Spots already sprayed included the Hockomock Swamp region near Taunton and Raynham, the Neponset River basin and marshlands in Norwood.

One application of DDT is expected to keep mosquitoes inactive until the first frost. The disease has spread from southeast Massachusetts to five counties this year.

Dr. Roy F. Feemster, state director of the Massachusetts Health Department, said "the threat of encephalitis in Massachusetts creates a real emergency."

Gov. Christian A. Herter called for emergency measures to curb the outbreak of horse sleeping sickness. He said the only effective method of controlling the disease is eradication of the mosquito by spraying.

The governor estimated that a total of 150,000 acres in Bristol, Norfolk and Middlesex Counties would have to be sprayed from planes. He ordered the State Reclamation Board to coordinate the spraying program. Funds to finance the program will be taken from the appropriation for the Bureau of Preventive Disease Control in the Department of Public Health.

Dr. Feemster said the most dangerous spots in the state were located in Bristol, Norfolk and Plymouth Counties. Safest places in those counties are along the seaboard, Dr. Feemster added.

COMMISSION MEETS

WASHINGTON—Members of the presidentially appointed Commission on Increased Industrial Uses of Agricultural Products held their first meeting in Washington, D.C., recently. The commission's duties are to develop by next June 15 legislative and other recommendations designed to bring about wider use of agricultural commodities in the manufacture of industrial products. The commission is concerned not only with extending the industrial uses of present crops, particularly those in surplus, but also with the development of new crops to provide continuing sources of industrial raw materials.

GREAT PLAINS MEETING

(Continued from page 1)

raska's fertilizer situation was giv- by a series of speakers connected ith the department of agronomy of e University of Nebraska and the tension service. That Nebraska ould use at least 110,000 tons of trogen annually was voiced by H. Rhodes of the agronomy depart- ent. Under normal conditions this the requirement, he said, but this ar due to the drouth possibly only lf that amount was applied.

D. Knudson, extension agrono- mist, commented that soil tests ave not found their proper place n Nebraska agriculture. Of an esti- mated 100,000 farm units in the tate only about 25,000 soil tests were handled in a recent year. He said that getting the most out of soil tests depended on accurate sampling, dependable tests and good recommendations.

R. A. Olson of the agronomy de- artment gave in order of prefer- nce the pH carriers for small grain rops in acid soils and calcareous oils. A. F. Dreier, Nebraska agron- mist, discussed the factors of time f year, method of application and ates in regard to nitrogen carriers. He summarized state tests on win- er wheat over the past five years s follows:

	Yield (bushels per acre)	
Five-year average	Fall	Spring
rea	31.8	32.9
ulfate	32.9	29.2
itrate	31.6	31.3

He indicated that fall application ppeared to have the greater effect n volume of yield, while spring ap- lication was most favorable in re- ard to protein quality.

Plant root depth and amount of oisture have considerable influence n the efficiency of corn yields, said R. E. Ramig of the North Platte Experiment Station. The speaker ummarized tests at the station with oot depths. He pointed out that corn oots go to depths of two to four eet even while the exposed plant is nly a few inches high. This tends to lter some ideas on moisture require- ents and time of moisture during he growing season.

Soil conditions which point up race element deficiencies were list- d by Leon Chesnin of the agronomy epartment: 1. pH above 7.1%, 2. high lime, 3. high moisture (in- luding irrigation and water table), 4. low organic matter (such as would ause erosion and land grading), 5. andy soil texture. E. M. Brouse dis- ussed fertilization of sub-irrigated eadows and G. W. Lowrey spoke n a year-around fertilizer calendar.

Floyd W. Smith of the agronomy epartment, Kansas State College, Manhattan, traced the history of ex- erimentation in various Kansas oils on fertilization and, in particu- ar, use of nitrogen. In general, re- ent work shows that with milo on andy Kansas soils, there is good yield response when the nitrogen por- ion is increased; added response with the inclusion of phosphate and further increase with potash in the formula.

Generally, Dr. Smith's recommen- dation was for 50 lb. N per acre with added P and K where needed for Kansas wheat acreage. The average response is an increase of 12 bu. an acre when this level of nitrogen is applied. While milo responds well to fertilization in Kansas, the resulting price received for the commodity is not so attractive as wheat, the speak- er said. Therefore, he surmised that wheat is the number one Kansas crop for nitrogen use, and milo second.

In speaking of fertilizer use in Minnesota, J. M. MacGregor of the soils department, University of Min- nesota, St. Paul, pointed out that the average yield of corn has been increased nearly 9 bu. an acre in the last 10 years.

This 20% increase is largely due to the use of fertilizer, he said, and during this 10-year period the use of nitrogen in Minnesota has increased 1,765%. We could use at least 100,000 tons of nitrogen an- nually in Minnesota, he declared.

Winding up the meeting was a demonstration of equipment use and application on the experiment sta- tion farm east of Lincoln. Partici- pants in the demonstration included the Dempster Mill Manufacturing Co., Beatrice, Neb.; the CK Manu- facturing Co., Atherton, Mo.; the John Deere Co., Chicago; Phillips Chemical Co., Bartlesville, Okla., and the John Blue Co., Huntsville, Ala.

J. Charles Fletcher Joins American Chemical Paint

AMBLER, PA.—J. Charles Fletch- er has been appointed sales repre- sentative of the agricultural chemi- cals division of American Chemical Paint Co., according to an announce- ment by the firm.

Mr. Fletcher, who will cover Mis- sissippi, Arkansas and Louisiana, re- placed Dan Chisholm, who has been appointed sales supervisor of the southern division of the company.

After army service in North Africa and Germany, Mr. Fletcher entered the University of Alabama's pre- engineering course prior to entering the sales field. He is a native of Memphis. He has been residing in Jackson, Miss., which will be his headquarters.

SBA Approves Loans To Industry Firms

WASHINGTON—Several loans to industry firms were approved during July bv the Small Business Adminis- tration here. They were for:

Budd Aero, Inc., Dinuba, Cal., crop dusting, $42,800; Chemgro, Inc., Fer- gus Falls, Minn., fertilizer manufac- turer, $45,000; North-Ag Chemical & Supply Co., Forest City, Iowa, fertili- zer manufacturer, $50,000.

NAMED NEVADA DEAN

COLLEGE STATION, TEXAS — Dr. J. E. Adams, dean of the School of Agriculture at Texas A&M Col- lege, has resigned to accept the post of director of the Agricultural Ex- periment Station and the Agricul- tural Extension Service, and dean of the Max C. Fleischmann College of Agriculture at the University of Nevada. He will take up his new duties about Sept. 15.

Atkins, Kroll & Co. Importing Calcium Nitrate Product

SAN FRANCISCO—Atkins, Kroll and Co. of San Francisco is now im- porting in quantity and on a regular and steady basis the fertilizer com- position of calcium nitrate produced under the Horse & Lion brand by Badische Analin and Soda Fabrik, Ludwigshaven in West Germany.

This fertilizer, a new brand on the California scene, is made by the same company that produces the Horse & Lion urea imported for the past year. The first large shipment of the chemical arrived at the port of Stockton, Cal., on Aug. 20 for distribution throughout northern Cal- ifornia. Heretofore the brand has ar- rived only in small quantities for test distribution.

Packed in 100-pound sacks, the chemical will be warehoused in north- ern California, and additional ship- ments will arrive on a regular basis to the northern California port, ac- cording to Robert Brownscombe, as- sistant to George Bloxham, sales manager of Atkins Kroll's fertilizer division.

Thomas E. Milliman Honored by Rutgers

ITHACA, N.Y.—Thomas E. Milli- man, now historian of Cooperative G.L.F. Exchange, Inc., Ithaca, was honored recently by Rutgers Univer- sity for his contribution to agricul- ture in the northeast.

He received the Rutgers Univer- sity Award at the 25th anniversary dinner of the Rutgers Dairy Research Farm, Beemerville, N.J. Lewis Web- ster Jones, Rutgers president, pre- sented the medal inscribed, "For de- votion to research."

Head of the fertilizer and farm chemical division of G.L.F. for 15 years, Mr. Milliman has also been G.L.F. director of research and head of marketing operations.

A farm innovator since he began his service to agriculture as a county agent in 1915, Mr. Milliman was called "an incorrigible experimenter" by Mr. Jones. "Many farm prac- tices taken for granted today were originated by you. Today's more ef- ficient use of lime and fertilizer is largely a product of your leader- ship. You have been a consistent supporter of research. Northeastern agriculture stands eternally in your debt," Mr. Jones said.

Agricultural consultant to several farming and marketing enterprises in the U.S., Canada and England, Mr. Milliman writes a regular col- umn for the American Agriculturist. During World War II he was price administrator for agricultural chemi- cals with OPA and later headed the agricultural chemicals division of the War Production Board.

John D. Zigler

John D. Zigler New General Manager of IMC Plant Food Division

CHICAGO — John D. Zigler has been appointed general manager of the Plant Food Division of Interna- tional Minerals & Chemical Corp., Maurice H. Lockwood, vice president in charge of the division, announced Sept. 1.

For the past two years, Mr. Zigler has been operating manager of the division, supervising sales and pro- duction at the division's 26 chemical fertilizer plants.

Starting as a salesman for Inter- national fertilizer 23 years ago, Mr. Zigler climbed progressively to as- sistant district manager, district manager and area manager before becoming operating manager of the Plant Food Division.

His 12 years as district manager and three years as area manager were spent at Chicago Heights, Ill., where International has a chemical fertilizer plant. As operating man- ager his headquarters have been in the corporation's main offices in Chi- cago, where he will continue to make his office as general manager of the division.

FDA Issues Tolerances For Pyrenone in Post Harvest Treatments

BALTIMORE — A wide variety of fresh fruits, including tomatoes, that are to be processed, frozen or canned have been given offical tolerances by the Food and Drug Administration of 8 parts piperonyl butoxide plus 1 part pyrethrins (or from different treat- ments 4 parts allethrin) per million parts of fruit. These tolerances pro- vide for treatments at harvest, dur- ing transportation or prior to the processing operations at canneries for control of fruit flies (Drosophila) and other insects, according to an announcement by Fairfield Chemical Division, Food Machinery & Chemi- cal Corp.

The same tolerance level of 8 parts piperonyl butoxide and 1 part pyre- thrins also has been given official sanction for storage of peanuts, wal- nuts, almonds, cottonseed, flaxseed, oats, beans, peas, grain sorghum, co- pra and cocoa beans.

The above tolerances do not change the higher level of 20 parts piperonyl butoxide and 3 parts pyrethrins pre- viously approved by FDA for stored wheat, corn (including popcorn), rice, rye, barley and buckwheat.

No tolerance is needed for piper- onyl butoxide and pyrethrins in meat and milk because no residues resulted from prolonged and repeated use of Pyrenone sprays on beef and dairy cattle, according to Fairfield. Such sprays are legally used when applied according to good agricultural prac- tices on meat animals and on lactat- ing dairy cows.

FDA Head Sees Small Danger From Pesticide Use on Food Crops

By JOHN CIPPERLY
Croplife Washington Correspondent

WASHINGTON, D.C.—Reports of a recent scientific meeting in Rome, Italy, in which the use of economic poisons in producing food was labeled as a "real and present danger to human beings," was an abstraction for the consideration of scientists rather than for the general public, George P. Larrick, commissioner of the Food and Drug Administration told Croplife in an interview here last week.

Mr. Larrick said that the Rome report, similar to previous such declarations on the dangers of economic poisons used in the pro- duction of foods, needs analysis be- fore it can get general currency. In the U.S., he pointed out, under pro- visions of the Miller amendment of the Food, Drug and Cosmetic Act, pesticide residue tolerance levels are such that proper use of economic poisons cannot be harmful to the ul- timate consumer. The scientists who authored the statement from Rome, it was indicated, were viewing the effect of chemical additives in foods as well as the hazards in connection with the use of pesticides in produc- ing fruits and vegetables.

Mr. Larrick declared, however, that he has been "pleased with the fine cooperation from the chemical industry," and added that he is "well satisfied with the effects of the Miller Amendment."

Despite the unfavorable report from the Rome conference, Mr. Lar- rick told Croplife that the FDA is still operating on the basis that established tolerances for economic poisons are safe, sure, and harmless to the consumer.

Croplife®

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Northeastern states.

1956 Season Heralds Good Days Ahead for Pesticides

A definite atmosphere of optimism is evident throughout the pesticide trade as members of the National Agricultural Chemicals Assn. assemble at their annual fall meeting in New Jersey. The past season has been a good one and the trade has every reason to look with confidence toward an equally prosperous time next year.

A strong emphasis on sales marks a realistic approach to the industry's problems in this regard, with the program including a panel of experts discussing what persons and other influences cause growers to buy and use agricultural chemicals. Points brought out in this basic type of study will be of use to the industry for a long time to come. It marks another effective step on the part of the pesticide industry toward a better understanding of the fundamental psychology of farmers, and in turn, the development of improved methods of merchandising and selling.

An excellent educational job is being done by a number of firms in the industry, which, coupled with extension workers on both state and federal levels, is helping to keep the farmer increasingly conscious of the benefit he can derive from buying and applying pesticides. This work should not only be continued, but also expanded and intensified so that pesticides may be more universally accepted as an integral part of producing crops. Too often, growers even yet regard the application of insecticides and fungicides as emergency measures to be used only in cases of dire necessity.

Finding out new ways to attack this problem is a basic necessity, and we are sure that the entire trade will benefit from the kind of frank appraisal that this program offers. A packed auditorium should mark the high degree of interest held in this matter by NAC Assn. members.

Naturally, the panel discussion isn't the only worthwhile event on the three-day program. Other well-known speakers are upholding the high quality of program which the NAC has maintained for the past 23 years. This fall meeting of the association has become quite an institution to many who have been attending for years.

Growth of the NAC is indicative of the expansion of the industry, and the 500 or so persons in attendance at this week's conference mark a several-fold increase over the number on hand at the early meetings of the original Agricultural Insecticide and Fungicide Assn.

Such growth, based on sound principles of producing good products, improving them and working out effective merchandising and distribution patterns, makes the future prospects of the industry bright indeed. The NAC and its members have every reason to be happy about this year's business and the prospects for that of subsequent seasons.

Flavor Alterations by Pesticides Can Be Licked

That overdoses of insecticides may alter the flavor of some foods is not news to the pesticide trade. But there is some significance in finding the degree of over-application needed to effect such an alteration.

Recently-completed tests at the University of Wisconsin, which had been run over a period of four years, underlined the fact that great care must be taken in recommending the kinds and amounts of pesticides for different crops, and further, that equal care must be made to adhere to such recommendations.

In the Wisconsin experiments, three taste-testing researchers carried out extensive trials with canning vegetables, using some 200 persons as testers in the four-year quest for information. It was found again, as previous experiences, both intentional and otherwise, have taught, that under certain conditions, insecticides can alter flavor in vegetables.

But here is the significant factor: the researchers used rates of insecticide application about four times the normal amounts, which they considered as not enough margin for safety.

We are inclined to feel, on the contrary, that such a margin should afford a broad enough area that reasonable care on the part of growers could assure that flavor would remain unimpaired. Granted that many applicators have operated for years on the theory that if a little is good, a lot must be better, we feel that educational efforts on the part of the industry and the extension services, plus experience on the part of farmers, will eventually overcome this hazard.

Until that golden day arrives, however, efforts by all responsible people in the industry . . . and that is all of us . . . must continue to work in the direction of safe use of pesticides. The double trouble of too much residue and the changing of vegetables' flavor can be overcome and may be in a shorter time than many think.

Wisconsin researchers K. G. Weckel, John Birdsall and R. K. Chapman have done the industry a service in finding out more about this problem of taste-changing in vegetables. Their report should not frighten growers away from the use of insecticides, but rather, make the latter more mindful of the potent stuff they are handling.

Kill That Poison Ivy!

Probably at this time of year, with vacations a fresh memory, and all, lots of folks are reminded of their out-in-the-woods camping experiences not so much by recollections of pleasant, care-free days, but by itching arms and legs resulting from contact with poison ivy.

Next to an ardent dislike for mosquitoes, the number one target for man's wrath against nature's nuisances is this ubiquitous poison ivy plant. The surprising thing is, that with potent herbicides like 2,4,5-T, which make it easy to completely kill out this plant from an area, more operations of these kinds are not done. Maybe it is penny-pinching on the part of resort owners. Maybe it is ignorance on their part about the blessings of herbicides to rid their guests of this irritating menace. Or, maybe, an all-out selling job has not been done in enough cases. We don't know.

But it looked this summer like a great additional market potential exists, and could be captured to a large extent next season. Resort owners, city and state park boards and many other such individuals and groups still have to be told about the ease with which poison ivy (and other unwanted vegetation) can be cleaned out chemically.

We are aware that in many cases these people have already been sold, but judging from our own observation and from the reports of a number of bandaged-up and itching friends, a great amount of additional herbicides might be moved next season in many states. Everyone dislikes poison ivy.

Well, come next vacation time, we hope that some enterprising pesticide salesman will have been there ahead of ourselves when we undertake to enjoy the great out-of-doors, sans this itching ivy. The problem might be described as one where the industry must literally go around "beating the bushes" for business. But the potential is there for the alert dealer who does a selling job . . . and we'll bet he has success, even if he must start from scratch!

Croplife

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CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is $5 for one year ($8 a year outside the U.S.). Single copy price, 25¢.

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MEETING MEMOS

Sept. 5-7 — National Agricultural Chemicals Assn., 23rd Annual Meeting, Essex and Sussex, Spring Lake, N.J., L. S. Hitchner, 1145 19th St. N.W., Washington, D.C., Executive Secretary.

Sept. 12 — New England Fertilizer Conference, Bald Peak Colony Club, Melvin Village, N.H.

Sept. 18-19—Symposium on Chemicals in Food Production, Presented by Division of Chemical Marketing and Economics, American Chemical Society, Atlantic City, N.J.

Sept. 27—New Jersey Fertilizer Conference, Rutgers University College of Agriculture.

Oct. 8-10 — Carolinas-Virginia Pesticide Formulators Assn., Inc., Annual Meeting, Holly Inn, Pinehurst, N.C., W. R. Peele, 516 S. Salisbury St., Raleigh, Secretary-Treasurer.

Oct. 9—Western Agricultural Chemicals Assn., Fall Meeting, Villa Hotel, San Mateo, Cal., C. O. Barnard, 2466 Kenwood Ave., San Jose, 28, Cal., Executive Secretary.

Oct. 15 — Fifth Annual Chemical Sales Clinic, the Salesmen's Association of the American Chemical Industry; Hotel Commodore, New York City; chairman, Preston F. Tinsley, Westvaco Chlor-Alkali Division, Food Machinery and Chemical Corp., 161 East 42nd St., New York 17, N.Y.

Oct. 16-17—National Nitrogen Solutions Assn., Annual Meeting and Trade Show, City Auditorium, Sioux City, Iowa; John White, Auburn, Neb., secretary.

Oct. 16-18—Fertilizer Industry Round Table, Shoreham Hotel, Washington, D.C. Vincent Sauchelli, Chief Agronomist, Davison Chemical Co., Div. W. R. Grace Co., Baltimore 3, Md., chairman.

Oct. 16-18—Canadian Agricultural Chemicals Assn., Fourth Annual Meeting and Conference, Sheraton-Brock Hotel, Niagara Falls, Ontario.

Oct. 18-19—Association of American Fertilizer Control Officials, Shoreham Hotel, Washington, D.C., B. D. Cloaninger, Clemson Agricultural College, Clemson, S.C., secretary-treasurer.

Oct. 22-23—Fertilizer Section, National Safety Council, La Salle Hotel, Chicago, Ill.; Curtis A. Cox, Virginia-Carolina Chemical Corp., Richmond, Va., chairman.

Oct. 23-24—Pacific Northwest Garden Supply Trade Show, Shrine Auditorium, Portland, Ore.

Oct. 25—Middle West Soil Improvement Committee, Annual Meeting, Sherman Hotel, Chicago; Z. H. Beers, Executive Secretary, 228 N. La Salle St., Chicago 1, Ill.

Nov. 2—Southern Soil Fertility Conference, Atlanta-Biltmore Hotel, Atlanta, Ga.

Nov. 7-9—Agricultural Ammonia Institute, Annual Convention, Atlanta Biltmore Hotel, Atlanta, Ga., Jack F. Criswell, Claridge Hotel, Memphis, executive vice president.

Nov. 7-9 — Pacific Northwest Plant Food Assn., Annual Convention, Harrison Hot Springs Hotel, Harrison Hot Springs, British Columbia, Leon S. Jackson, Lewis Bldg., Portland, Ore., secretary.

Nov. 11-13 — California Fertilizer Assn., 33rd annual convention, Del Coronado Hotel, Coronado, Cal.; Sidney H. Bierly, executive secretary, 475 Huntington Drive, San Marino 9, Cal.

Nov. 13-15—18th Annual New York State Insecticide and Fungicide Conference and 9th Annual Pesticide Application Equipment Conference, Bibbins Hall, Cornell University, Ithaca, N.Y.

Nov. 19-20 — Eastern Branch, Entomological Society of America, Hotel Haddon Hall, Atlantic City, N.J., B. F. Driggers, Rutgers University, New Brunswick, N.J., secretary.

Nov. 19-20—Ohio Pesticide Institute winter meeting, Neil House, Columbus, Ohio.

Nov. 27-28—Indiana Fertilizer Conference, Memorial Union, Purdue University, Lafayette, Ind.

Nov. 28—Oklahoma Fertilizer Dealers Conference, Sponsored by the Oklahoma Plant Food Educational Society, Oklahoma A&M College, Stillwater.

Nov. 29—Oklahoma Soils and Crops Conference, Oklahoma A&M College, Stillwater.

Dec. 6-7—Alabama Soil Fertility Society, Whitley Hotel, Montgomery, Ala.

Dec. 10-12—13th Annual North Central Weed Control Conference, Sherman Hotel, Chicago.

Dec. 27-31—Entomological Society of America, Annual Meeting, Hotel New Yorker, New York City.

July 17-19—Southwest Fertilizer Conference, Galvez Hotel, Galveston, Texas.

1957

Jan. 23-25 — Southern Weed Conference, Bon Aire Hotel, Augusta, Ga.; Walter K. Porter, Jr., Agricultural Experiment Station, Louisiana State University, Baton Rouge, secretary.

Jan. 28-29—National Cotton Council of America, Annual Meeting, St. Louis, Mo.

Jan. 31-Feb. 1-2 — Agricultural Aircraft Assn., Annual Convention, Senator Hotel, Sacramento, Cal., Wanda Branstetter, Route 3, Box 1077, Sacramento, Executive Secretary.

June 26-28 — Eighth Annual Fertilizer Conference of the Pacific Northwest, Benson Hotel, Portland, Ore. B. R. Bertramson, Washington State College, Pullman, Wash., chairman.

Ashcraft-Wilkinson Opens New Sales Office in Des Moines

ATLANTA — Ashcraft-Wilkinson Co., sales agents for Duval Sulphur & Potash Co., has announced the opening of a new district sales office at Des Moines, Iowa, under the supervision of James S. Greene.

The office, located in the Insurance Exchange Bldg., will provide service to customers in Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

CALIFORNIA FIELD DAY

BERKELEY, CAL. — Green manures will be discussed at the fall Agronomy Day to be held on the Davis campus of the University of California Friday, Sept. 7. Current field experiments with summer and winter-grown green manures on succeeding corn crops will be shown to the growers attending the annual event. William A. Williams, assistant professor of agronomy in the College of Agriculture, will discuss the various types of green manure crops tested for nitrogen and their effects on soil tillage. The day-long program will also include talks on soybeans and sorghum production and hill planting and weed control of sugar beets.

Dr. Ernest R. Marshall

JOINS FELLOWSHIP—Dr. Ernest R. Marshall has joined the Carbide and Carbon Chemicals Co. fellowship at Boyce-Thompson Institute for Plant Research to coordinate field testing of new agricultural chemicals. This was announced by Dr. D. M. Yoder, head of Carbide's fellowship on biological research. Carbide and Carbon Chemicals Co. is a division of Union Carbide and Carbon Corp. Dr. Marshall's activities will be concerned primarily with the field testing of agricultural chemicals discovered by the fellowship at Boyce-Thompson Institute. Previously Dr. Marshall conducted extensive research for five years for the G.L.F. Soil Building Service. Dr. Marshall received his Ph.D. in horticulture from the department of vegetable crops at Cornell University. While doing undergraduate work, he went to school in California for two years, and then to Purdue University for the balance of his studies leading to a bachelor of science in agriculture with highest distinction.

Northwest Mills Advances W. E. Jones

ST. PAUL—W. E. Jones, formerly production engineer, has been appointed manager, fertilizer division, by Northwest Cooperative Mills here, according to an announcement by A. H. Roffers, general manager of the firm.

Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge $3.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Classified advertising rate not available for commercial advertising. Advertisements of new machinery, products and services accepted for insertion at minimum rate of $9 per column inch.

All Want Ads cash with order.

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FERTILIZER SALESMAN—WE NEED A man with farm background or agricultural selling experience for Wisconsin territory. Real opportunity for man not afraid to work. Prefer man under age 35. Long established and expanding fertilizer company. Salary and incentive plan. Address Ad No. 1990, Croplife, P. O. Box 67, Minneapolis 1, Minn.

Commerce Department Offers Pallet Book

WASHINGTON—The U.S. Department of Commerce reports that a new graphic method for selection of patterns for loading 20,000 sizes of containers on the 40-by-48-in. pallet has been devised by the Navy and published in a report available to industry through the department's Office of Technical Services.

The chart method assembles in a single volume a great deal of data on warehousing and transportation of palletized loads.

The report, PB 111845 Container Size and Pallet Pattern Selection Criteria for Use on 40-by-48-in. Pallets, may be ordered from the Office of Technical Services, U.S. Department of Commerce, Washington 25. Price is $3.

FARM ADVISERS NAMED

SAN FRANCISCO — Four men have been appointed to positions as farm advisers and county directors in California, according to an announcement by George B. Alcorn, director of the University of California Agricultural Extension Service. The new appointees and the counties in which they will serve are Arthur Swenerton in Solano County, Ban Ramsaur in Sutter County, William Helphinstine in Nevada County and Paul Lamborn in Contra Costa County.

INDEX OF ADVERTISERS

Allied Chemical & Dye Corp., Nitrogen Division
American Potash & Chemical Corp.
Anco Manufacturing & Supply Co.
Ashcraft-Wilkinson Co.
Atkins, Kroll & Co.

Baughman Manufacturing Co., Inc.
Beaird, J. B., Co.
Bemis Bro. Bag Co. 6
Bennett Industries, Inc.
Blue, John, Co. 13
Bonneville, Ltd
Bradley & Baker 3
Broyhill Company 2
Butler Manufacturing Co.

California Spray-Chemical Corp.
Chase Bag Co.
Clover Chemical Co.
Commercial Solvents Corp.
Consolidated Mining & Smelting Co.

Davison Chemical Co.
Deere & Co., Grand River Chem. Div.
Douglas Chemical Company.
E. I. du Pont de Nemours & Co., Inc.

Fairfield Chemical Division, Food Machinery and Chemical Corp.
Flint Steel Corporation

Geigy Agricultural Chemicals 5
Grace Chemical Co.
Grand River Chemical Div., Deere & Co.

Hahn, Inc.
Henderson Mfg. Co.
Hercules Powder Co. 24
Hough, Frank H., Co. 19

International Minerals & Chemical Corp.

Johns-Manville Corp.

Kent, Percy, Bag Co.
Kraft Bag Corp. 8

Lion Oil Co., Div. Monsanto Chem. Co.

Meredith Publishing Co.
Miller Publishing Co., The
Minerals & Chemical Corp. of America
Mississippi River Chemical Co.
Monsanto Chemical Co.

National Potash Co. 7
Naugatuck Chemical Div., U. S. Rubber Co. 17
Nitrogen Div., Allied Chemical & Dye Corporation

Olin Mathieson Chemical Corp.

Pacific Coast Borax Co.
Pennsylvania Salt Mfg. Co. of Washington.
Phillips Chemical Co.
Potash Company of America
Private Brands, Inc. 11

Rieke Metal Products Corp.

Shell Chemical Corp.
Sinclair Chemicals, Inc.
Smith-Rowland Co., Inc.
Spencer Chemical Co.
Stauffer Chemical Co.
Stewart-Warner Corp.
Successful Farming

Tennessee Corp.

Union Bag Camp Paper Corp.
U. S. Phosphoric Products Division 3
U. S. Potash Co.
U. S. Rubber Co., Naugatuck Chem. Div. 17
U. S. Steel Corp.

Velsicol Chemical Corp.
Virginia-Carolina Chemical Corp.
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